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THE PROBABILITY OF A WORD-ATOM HYPOTHESIS*

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THOSE who conduct research in any phase of language development must be aware of the changes which are taking place in modes of thought. Scientific theories of yesterday are being abandoned at a rate that cannot but prove alarming to the conservative scholar. From the language point of view, the theory of relativity has bent the straight line, warped the plane, and put dents in the cube. It has aided the overthrow of the time-honored theory of the ether and left existence with blank spaces which science is now trying to fill in with plausible new theories. As one writer states the situation, "Science has temporarily closed its temple and put a sign over the door, saying, 'Extensive repairs being made. Meddlesome philosophers and prying metaphysicians keep out.'"

The warning might have included the rhetorician along with the philosopher and the metaphysician, because it is my purpose to ask your aid in prying into the allegedly sacred precincts of scientific nomenclature. A state of refinement and differentiation has been reached in which the nature and structure of words becomes an important factor.

What is the essential nature and structure of a word? If the sounds and marks by which it is designated were of its essential

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nature, they should be the same in every language. The paper on which this discussion is printed should be named by the same sounds and marks in English, German, Hebrew, Chinese, and Greek. Since it is designated by different sounds and marks in each of these languages, they must be arbitrary designations having little to do with the essential nature and structure of the word "paper." Hereafter, in this discussion, we shall designate these sounds and marks as word-symbols.

Without regard to the word-symbol used to designate paper, the concept identified by that term possesses an approximate uniformity. In this concept we have a meeting point of consciousness which we shall hereafter designate as a word-concept. This concept of "paper" is approximately the same in the consciousness of all people, without regard to whether they speak English, German, Hebrew, Chinese, Greek, or other languages.

We have looked beyond the word-symbol to the word-concept which it designates. Let us now consider the foundation on which the word-concept rests. Our first thought is that this is a simple and obvious matter. Surely the material object of which the mind conceives is the base of the word-concept. From this point of view, a piece of paper is the foundation of the word-concept which we designate by the word-symbol "paper." But there are many intangibles such as relativity, scholarship, or academic freedom which are in themselves not discernible by the physical senses. One answer may be made that while these intangibles are not themselves the objects of sense perception, their manifestations are clearly sense perceived. Relativity may be expressed in mathematical formulas, scholarship in grades and honors, and academic freedom in books and speeches. Relativity, scholarship, and academic freedom are word-concepts of actuality of which we may become just as word-conscious as of a piece of paper. In fact, we must regard them as having a greater reality because we gladly endure sacrifice and labor to master the theory of relativity, to attain scholarship, and to perpetuate academic freedom.

Furthermore, we may well ask ourselves whether the piece of paper is within itself the actuality upon which our word-concept of the word-symbol "paper" is based. When we look into the actuality of paper as held in consciousness, without regard to the language in which it is designated, we find that no two people have exactly the same word-concepts. The uniformity is only approximate. We

know that there are different kinds of paper and an extensive array of sizes, colors, weights, and textures. Nevertheless, each person has an individualized concept of the general term. To those of us who teach, "paper" may mean primarily a sheet of white writing paper of fairly good quality. Nevertheless, I know a professor who has a financial interest in a paper mill and to him "paper" is a great roll of newsprint. A student who works in a university storeroom frankly confesses that to him "paper" is just wrapping paper.

There must be something back of symbol and concept which is more exact than these confused meanings. In order to encompass it, perhaps we should try to find out what word-concept of the word-symbol "paper" exists in the consciousness of those who live and work with paper. Some years ago I visited a great newsprint paper mill. Amidst the hum of grinders, the smell of pulp vats, and the fascination of great broad sheets of paper issuing smoothly from the rolls, the superintendent of that mill talked of quantity production and waved his arm with pride at the rapidly filling storeroom. To him, a standard quality in the greatest amount was the actuality back of his word-concept of "paper."

Some time later I visited a plant where writing paper is made. There I found a studious old gentleman whose pride was in fine paper rather than in quantity production. He began by showing me samples of their finest product. Soon I was lost in minute distinctions between the aristocrats of paperdom. The point that interested me above all else was that when we had passed what seemed to be the ultimate in paper excellence, this lifelong maker of fine papers complained of not being able to accomplish the results for which he was striving. In his word-concept of fine paper, he was conscious of an end which he could never achieve and of a goal which he could not reach. This must be the reality upon which the word-concept rests—a reality which is only imperfectly embodied in the sense-perceived paper of our material world. It is doubtless for this reason that Emerson declared that he would rather know the name of a thing than to know the thing itself. His philosophy penetrated beyond both sense perception and abstract understanding to the true word or the word of actuality. The name, or word, is perfect. The material object is imperfect, as is also our word-concept of it. Reality must exist in the perfect word.

Let us ask the philosopher, "What is reality?" Says Leighton, "Reality is anything that really exists either in the physical world or

in minds."[1] Of that which exists in minds only, we have word-concepts only. Its existence is a word existence. Are we not justified in saying that it has no actuality apart from that on which rests concept and symbol?

The principle of relativity clearly sanctions the theory that words are actualities within themselves. Einstein, in explaining position and space, says, "I stand at the window of a railway carriage which is travelling uniformly, and drop a stone on the embankment without throwing it. Then, disregarding the influence of air resistance, I see the stone descend in a straight line. A pedestrian who observes the misdeed from the footpath notices that the stone falls to the earth in a parabolic curve. I now ask: 'Do the positions "traversed" by the stone lie in "reality" on a straight line or on a parabola?' "[2]

Einstein answers his question by saying, "The stone traverses a straight line relative to a system of co-ordinates rigidly attached to the carriage, but relative to a system of co-ordinates rigidly attached to the ground (embankment), it describes a parabola. With the aid of this example, it is clearly seen that there is no such thing as an independently existing trajectory (lit. 'path curve') but only a trajectory relative to a particular body of reference."[3]

May we not reasonably conclude from Einstein's illustration that actuality for the man who dropped the stone is the straight line of which he has a word-concept which he may designate by its appropriate word-symbol? Actuality for the man on the footpath is the parabolic curve of which he has a word-concept. By means of word-concepts, too, each may know what the other is seeing and this is a further actuality entirely separated from the material fact of the falling stone. All exist as word-concepts of the true words of actuality which they represent. As Einstein points out, there is "no such thing as an independently existing trajectory." Space, location, or motion is relative within itself and relative in human consciousness. It may be said to have no existence apart from the word existence which is manifested in consciousness as a word-concept and designated by an oral, written, or printed word-symbol.

In his *The Nature of the Physical World,* Eddington designates reality as "mind-stuff"[4] which transcends all of our conceptions of

[1] Joseph A. Leighton, *Man and the Cosmos,* 29, 30, 61.
[2] Albert Einstein, *Relativity,* 9.
[3] *Ibid.,* 10.
[4] Eddington, *The Nature of the Physical World,* esp. 276.

the physical world and finds its embodiment in both consciousness and matter. At least, we may easily reach this conclusion from his "mind-stuff" premise. It is plain, then, that there is some reasonable justification for regarding all actuality as a basic word existence.

Let us now examine the body of facts which science presents for our consideration regarding the nature of actuality as embodied in matter. Edwin E. Slosson, author of *Creative Chemistry*, says:

> The progress of science is continually toward a dematerialization of matter. Physical analysis resolves the crude, heavy, solid stuff that our senses show us into finer and finer particles farther and farther apart until these practically disappear into mere points of irradiating influence. First the mass is divided into the molecule and this again into the atom, assumed at the time it was invented, to be the ultimate unit of matter. But recently the atom has been shown to be a sort of solar system, but more complex, composed of hundreds of electrons, corpuscles of electricity, whose radius is calculated to be 1/10,000,000,000,000 of a centimeter.

Since this was written, Professor Chadwick of Cambridge has broken up the proton, or nucleus, of the atom and discovered the neutron. Finally, we have the positron, another word-concept of matter in its non-sense-perceived state.

G. W. Gray in *Harpers* for February, 1934, states the situation as follows:

> And so science arrives at the beginning of 1934 with a perception of four building blocks which appear to be fundamental units in the structure of things. Electron, proton, neutron, positron—each an enigma bristling with questions, the four of them a maze of naïveté and mystery so irrational that, in many of their interactions, as Andrade said of the quantum theory, they "recall irresistibly the teachings of the alchemists and the witches' kitchen in *Faust*."

Small wonder, indeed, that science is alleged to have closed its doors for extensive repairs. Its explorations have extended so far beyond the material world that they are well within the borders of the non-material. In fact, science may be accused of wandering out of its own territory and being lost in the land of the philosopher and the rhetorician. The farther away from the sense-perceived world the scientist wanders, the more completely he must rely upon words. Word-concepts and word-symbols take the place of lenses and test tubes. May we not have reached a stage in our explorations of matter in which we need to turn our attention to the very word-concepts by which atoms are identified and the word-symbols by which they are designated?

Since the atom seems to be the working point at which we pass from the sense-perceived material world into the non-sense-perceived world of force, or "mere points of irradiating influence," may we not surmise that this force or influence is the same as that upon which rests concepts and symbols? Are we not justified in suggesting a word-atom hypothesis as a means of explaining the relationship existing between matter and consciousness? I quote from "The Organismal Conception" these words, "That the concept of 'matter' is something very abstract and a product of logical discernment is a conclusion which a good many scientists have reached by different courses of reasoning."[5]

Abstractions are word-stuff in the same category with the "mind-stuff" of a previously quoted authority. Word-concepts are the substance of logical discernment. Arranged in a definite order, they constitute a reality in common with the word-concept reality of Einstein's falling stone.

The probability of a word-atom hypothesis may be viewed in the light of what we have learned about the force which exists in both words and atoms. Startling claims have been made for the amount of energy stored in the atomic structure. Compton says, speaking of the proton or nucleus around which the electrons are said to revolve,

> There is a tremendous amount of energy in the nucleus. It is about a million times as much as is released when a molecule of TNT explodes. There is enough energy in five drops of water to run all the power stations in Philadelphia for twenty-four hours.[6]

Let us inquire into the nature of this energy in the atom which is spoken of in what would seem to be very extravagant terms. The scientific nomenclature on this point is very enlightening. At first this force appears to have been designated as being electrical. Was this because of its electrical manifestations or because our minute examinations of electrical force and atomic structure were taking place at about the same time? Association in time and space may have had more to do with this theory of electrical force than any strictly logical deductions.

At a later date, we find that the energy within the atom is associated with explosive force rather than with electricity. A study of

[5] Ritter—Bailey, "The Organismal Conception," *University of California Publications in Zoology*, (1928), 339.

[6] H. A. Compton, "Assault on Atoms," *Smithsonian Institute Reports*, (1931), 294.

the terminology employed shows a drifting toward the terms electrical energy as a means of identifying the force within the atom. More recently, however, the term "energy," unincumbered with the term "electrical," seems to be more widely used. This evolution of the word-symbol, designating the force within the atom, from electricity to energy must indicate an emerging word-concept of a new kind of energy heretofore not recognized by either science or philosophy.

Even if we were to admit that the force emanating from the atom under certain conditions is electrical, that does not convince us that the substance of the atom is electrical. A dynamo produces electricity, but that does not warrant an assumption that a dynamo is electricity. The dynamo has a sense-perceived existence of iron, steel, copper, and other materials. From the word point of view, we may safely admit that the electrons of the atom revolving around the proton at prodigious speed may be operating as a kind of dynamo generating electricity, and yet be very far from the conclusion that the substance or material of the atom is electrical.

If we regard the action within the atom as being susceptible of electrical measurement, we have not explained the source of that action. A dynamo must be attached to a source of power such as water, steam, or an internal combustion engine before it can be made to produce electricity. Are we amiss in making inquiry regarding the source of the power which may be said to operate the atom with such force and rapidity? Here, again, the terminology, and its history, applied to the force within the atom may indicate the direction in which we should look for an answer. From electricity to energy is a broad jump, but from energy to "irradiating influence" is an equally broad jump from the word-concept point of view.

Having reduced the material world to a somewhat broad conception of energy, let us now examine the energy existing in words. Keeping in mind our threefold understanding of words as embodied in symbol, concept, and actuality, we may consider an illustration of what happens when a word may be said to be in operation, or to revert to our material terminology, when it is manifesting energy.

No doubt many of you have shared with me the experience of working on a building committee which was promoting some educational structure. If you will revive your experience in this connection you will at once recognize its word substance. Perhaps the order of word utilization may be indicated by the following incident. A professor arose in a faculty meeting and suggested the appoint-

ment of a committee to consider the advisability of erecting a new language building. His word-concept of this building had been held long in consciousness and he spoke eloquently of its advantages.

The committee was appointed. In its meetings many plans were discussed regarding location, architecture, conveniences, and financing. All of these plans were made up of word-concepts of actuality handled by means of word-symbols. Then followed the campaign of ardent pleadings before executives and boards to provide the funds for the building project. When approval was secured, the architect brought to bear upon the problem all of his vast store of specialized word-concepts. When the plans and specifications were completed after many lengthy conferences in which professors, engineers, administrative officers, and others participated, contractors were invited to submit bids. The responsible contractor submitting the lowest bid was awarded the contract under carefully worded legal supervision.

Up to this point in the construction of this new language building, the whole process is a word process. Not one shovelful of earth has been turned. Not one ounce of material has been purchased or used. Nevertheless, we may say that the word structure of the building is complete. It is an actuality of which the professor made known his word-concepts by means of word-symbols. It is an actuality the truth of which is recognized by university executives. It is an actuality of which the architect was able to draw plans and specifications. It is an actuality in which the contractor was able to see so much labor, stone, brick, and steel. Its existence is now a word existence partly sense-perceived but mostly existing in the consciousness of its creators by means of word-concepts designated by word-symbols. With the plans, diagrams, and figures on paper, the money in the bank, and a responsible, well equipped contractor ready to begin operations, we have a building in existence which only awaits translation into the hard, solid stuff we call matter.

Without the power or energy of words, there could be no building. Labor, stone, brick, and steel alone could not build it. Words, in their threefold nature, are the essentials of the structure. Without them there would be no sense-perceived edifice brought into existence. Can we reasonably say that the word power, force, or energy which conceived, planned, and built the structure is a force in nature inferior to that which drags a stone into place in its foundation or hoists a steel beam into place in its framework? May we not be

permitted to surmise that such word energy is at least equal in actuality to the brute force of a steam shovel?

The energy which lies at the foundation of matter in the atom may be no different from that which lies at the foundation of consciousness in the word. If we are overawed by the physicist's computation of the amount of energy in five drops of water, we must be equally impressed by the energy revealed in a single word-concept of honor, freedom, education, or Christianity. When a word-concept generates enough energy to move a whole people for centuries and direct their action even to the willing sacrifice of life itself, we must admit a manifestation of energy which is entitled to a place beside any sense-perceived force of which we know. It is this larger conception of the word-symbol energy for which we are asking consideration.

The possibility of a connection between matter and consciousness was suggested by eastern philosophers centuries ago. Says Tagore, "These ancient seers felt in the secure depths of their minds that the same energy which vibrates and passes into the endless forms of the world manifests itself in our inner being as consciousness."[7] Modern science and philosophy, in the light of its superior word-concepts, should be able to build more securely and to utilize conclusions in a practical way.

The word-atom hypothesis may be a means of explaining what takes place in the synapse when a sentence is written on the blackboard. If any change takes place in the biological mechanism when the miracle of word perception occurs, it must be a change which encompasses both matter and consciousness. The point at which the sense-perceived brain becomes the non-sense-perceived word-concept in an algebraic equation must in some measure partake of the nature of both mind and matter. May we not, then, appropriately designate it as a word-atom substance or structure?

When Michelson succeeded in passing one solid substance through another solid substance and completely re-established the identity of each, he must have proved that the physicist's conception of matter and his insistence on evidence capable of sense perception is subject to many limitations. Likewise, when Marconi discovered wireless, he must have shown that dependence on the sense-perceived is not necessarily an attribute of matter. If mind and matter meet in the

[7] Rabindranath Tagore, *Sādhanā*, 21.

brain or in the synapse and mingle as word-atoms, it must be through this same word-atom existence that we may know of that meeting.

The probability of a word-atom hypothesis should cause us to look out upon the physical universe from a new point of view. Instead of regarding the universe as sparsely filled with stars, suns, and planets, we should regard it as a complete entity in which are sense-perceived and non-sense-perceived existences all subject to our awareness through the medium of word-concepts of actuality. This new conception should make us more keenly aware of our sense limitations, and of the fact that our only hope of advancing very far in understanding actuality is through our word-concept perceptions. It should bring science and philosophy closer together through the intervention of rhetoric.

Exactness is not necessarily an attribute of matter. It is basically a word-concept existence. We may expect methods of exactness to be devised for fields of thought far removed from pure science. Already beginnings in this direction have been made. In the *Institute of Law Publications* of the Johns Hopkins Press is a translation of Rueff's "From the Physical to the Social Sciences."[8] Exactitude will follow quickly the establishment of word measurements based upon exact standards of evaluation. These exact standards must follow inevitably the establishing of an exact factual word-unit to which the word-atom hypothesis naturally leads.

If the word-atom is the substance of actuality as manifested in both consciousness and matter, it must be as susceptible of measurement as the units of any other actuality in either field. Even the mathematician is paying more attention to the exactness of his word-concepts and marshaling his word-symbols with greater care. Said Steinmetz, "It is not correct to say, 'The sum of the angles in a triangle is 180 degrees,' but the correct statement of the mathematical theorem is: 'If certain premises or assumptions (the "axioms") are chosen as valid, then the sum of the angles in a triangle equals 180 degrees.'"[9] We must learn to evaluate word existences more carefully. One of the greatest services which could be rendered to science by language workers would be the setting up of exact standards of word measurement.

May I suggest an item of evidence indicative of the probability

[8] Jacques Rueff, *From the Physical to the Social Sciences*, Translated by Herman Green.

[9] Charles P. Steinmetz, *Four lectures on Relativity and Space*, 70-71.

of the word-atom hypothesis which is a natural concomitant of that hypothesis? While neither words nor atoms have space characteristics in the ordinary sense-perceived conception of the term space, it should be plain that so far as the word-atom is connected with matter, it must necessarily have such characteristics. More than a half-century ago it was observed that there must be some natural association responsible for the fact that one word suggests another. Whitney pointed out that "Language is not consciously fabricated, it increases by constant and implicit adaptation to the expanding necessities and capacities of men."[10] Studies in word association show the inevitable character of this response to necessities and capacities. Dimnet regards natural association as a sound method of intellectual creation. He says, speaking of what we have here designated as a single word-concept, "Gradually this idea grows, annexing or using its neighbors—."[11] This "annexing or using its neighbors" expression, taken in connection with our word-atom hypothesis, would seem to suggest a theory of word adjacency. In so far as word-atoms have space characteristics, one may be said to lie adjacent to another in an ever widening field of actuality perceptible to consciousness.

Each new word-concept, therefore, is a center from which we become aware of its neighbors. How many of its neighbors we can perceive depends upon the "expanding necessities and capacities of men." Certain it is that such word-concept perception proceeds at an accelerated rate. During the one hundred years from 1828 to 1928 this acceleration is clearly shown by the history of the Webster dictionaries. The edition of 1828 contained 70,000 word-symbols. The edition of 1864 contained 114,000 word-symbols, which show an annual increase of 1222. The revision of 1890 contained 175,000 word-symbols, or an annual increase of 2346. In 1928 the total reached approximately 400,000, or an annual word-symbol increase of 5921.

If it is asserted that the later editions contained more inflections and derivatives, it may be answered that these were added only when they identified peculiarities of meaning which were entitled to the status of new language units. The growth by periods clearly substantiates the acceleration of word-concept perception. This is the natural concomitant of the theory of word adjacency, just as the

[10] Whitney, *Language and Language Study*, 46.
[11] Dimnet, *The Art of Thinking*, 182.

theory of word adjacency is a natural concomitant of the word-atom hypothesis.

May it not be possible that new lines of cleavage in all word processes will appear in the light of a probable word-atom hypothesis? Just as the geometry of Euclid has become inadequate to measure some of the phenomena in modern physics, so may the logic of the ancients prove inadequate as a complete standard in modern rhetoric. I have asked your attention to the probability of a word-atom hypothesis in the hope that some of you may be led to investigate its possibilities further.

A BEHAVIORISTIC INTERPRETATION OF LANGUAGE

II. ITS VALUES

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IT HAS already been explained in an earlier publication,[1] that the most distinguishing difference between man and infra-human animals is language behavior. (Of course this includes those structural differences necessary to make language behavior possible.) Man is different from the lower animals principally because he can engage in language behavior. Now what are some of the advantages of this more complicated behavior? How has it enabled man to adjust himself to the conditions of the world more efficiently? What are the specific values of this peculiar behavior which enables man to live in a vicarious world, as well as in a world of direct stimulation?

A. The Co-operative Value

We have suggested that the co-operative value of language was one of the reasons for its own development. Language above the lower animal levels would perhaps never have existed had it not been for this. But the co-operative value of language has performed a greater function than merely to foster its own existence. *It has enabled men to specialize in various sorts of behavior and then to*

[1] J. Stanley Gray, *A Behavioristic Interpretation of Language, I. Its Development,*" *Q. J. S.*, XXI (1935), 36-41.

exchange with each other the products of their specialization. The process of doing this and the various forms of tools for so doing is what we call "civilization." Progress, as judged by the past, is in the direction of more and more specialization and consequently more and more exchange of products.

Let me illustrate by an imagined example from primitive life.[2] Here is a group of five Congo head hunters. Each one excels the others in a special sense—one in hearing, one in sight, one in smell, one in taste, one in feeling. As they travel about the jungle together, the one who can see best warns the others of an approaching lion long before they are able to see it. The one who can hear best detects a coming herd of elephants and warns the others so they can hide and escape danger. The one who excels in taste prevents the others from eating poisonous food. The tactile specialist can tell by the feel of the air that a storm is approaching and they all prepare for it. The one who can smell best often detects the presence of animals that can be neither seen nor heard. And so the group continues to live in the jungle and survive because its members have language ability and thus can co-operate. The results of sensory specialization can be exchanged with each other for the common welfare of all.

Suppose now that they cease to co-operate. How long could any of them survive without the others? Let us suppose that all become normal in their sensory range. How long could they survive? It is only by specializing and then co-operating that they are able to withstand the dangers they must face in order to survive.

On the higher levels of life, the individual not only adjusts himself to his environment, but he reconstructs his environment so that it is adjusted to him. By gaining control over environment, he is able not merely to survive, but he is able to build a civilization and leave a social heritage. In this respect, the *homo sapiens* has made enormous progress. It has been little more than three thousand years since man began to specialize and exchange to the degree that gave him power to go beyond mere environmental adjustment and control that environment. Mere survival is now hardly a problem at all. Modern civilization has made it possible for a very inferior individual to survive. "A being that can construct its own environment

[2] From an article by the author entitled "Breadth of View as the Aim of Education," *Journal of Educational Sociology*, (Jan., 1932).

is no longer subject to the tyranny of the environment."[3] The problem of modern man is not survival, but greater control over environment, or in other words, a more highly developed civilization. However, the method of attaining this is no different from the method of survival—individual specialization plus exchange of the products for the mutual benefit of all. This is the law of survival and the law of civilization.

When we think that civilization could not have existed; that our great institutions, our art, our literature, our music could never have been created; that nations and ideals and religions and conventionalities are all the products of specialization and exchange—we can get a glimpse of the co-operative value of language. Language has indeed served man well in this respect. It has lifted him from the level of a savage with brute intelligence and made him a god. By language man moulds his environment and thus controls his own destiny. It is language that has given man power over the land, the sea, the air, and enabled him to glimpse omnipotence. Only by language has man been able to rise above the level of the brute, and without language he would return thereto. With language, he is human; without language, he is but a mere beast.

B. The Discriminating Value

All animals make discriminating responses; i.e., they do not respond to all items within a stimulus situation equally. Some items have a greater stimulating value or weight for some animals than for others. In the same situation, the light will have the strongest stimulating value for a moth, the dark for a bat, and perhaps a bit of sugar for a bee. Any organic response implies discrimination and the nature of the discrimination depends on the nature of the responding structure. There are always more stimuli in any situation than can possibly be functioning. The ones that do function are known as those that are *discriminated* among. Anything to which an organism responds specifically is selected by discrimination.

The capacity to discriminate increases as we ascend the animal scale. The mammal can discriminate among a greater number and variety of stimuli than can the amphibia. Human beings excel all other animals in discriminating, or they make different responses to a greater number and variety of stimuli than do any other animals.

[3] B. H. Bode, *Fundamentals of Education*, (1921), 239.

It is true that in some discriminations man is inferior to some of the lower animals. He cannot smell some things as well as a dog, hear some things as well as a deer, or see some things as well as a crow. (This means that in some respects he does not have such a low sensory threshold in these senses as do the animals mentioned.) However, if we consider the whole range of sensitivity, man is vastly superior to any of the lower animals.

Note some of the subtle discriminations which are almost entirely limited to man—sound harmony and cadence, color combination and nuance, symmetry of shape, taste blending, odor pleasantness, etc. These and many others seem to be characteristic of man in his later stages of civilization. We seem to be progressing in the direction of making more and more subtle discriminations.

Now what is the relation of language to the process of making discriminations? An illustration will make the connection more clear. Here is a landscape painting which is being observed by a language-using human being and by a non-language-using organism of the same species. (The latter must be imagined. An entirely non-language-using human being would be considered an idiot. However, we shall postulate one that is normal except for language.) The latter looks at the picture and perhaps touches it, and then turns to something else. What else can he do? Looking and manipulating are just about the extent of his stock of responses. But the language-using man can respond to the trees of the picture, their color, their relation to each other; to the grass, the shadows, and the brook; he can respond to the sky and the clouds and their distance; he can respond to the season and the time of day; he can respond to the shapes and sizes and perspectives and colors; he can respond to almost an infinite number of relationships to the scene, such as beauty, poverty, enjoyment, war, literature, science, religion, music, philosophy, values, etc., etc. The man with language ability has an adequate variety of responses for making discriminations so far in excess of the non-language-using man that comparison is almost impossible.

Let us return to our illustration of the chicken-hen announcing a dangerous situation by her characteristic cackle-cry.[4] She could not communicate anything at all about the situation. She could not even tell whether the danger was in the air (a hawk) or on land (a fox). About all the chicken-hen can do is to discriminate between a

[4] J. Stanley Gray, *Op. Cit.*

danger situation and a food situation. The predication language-using animal, however, can discriminate among innumerable details about a danger situation. He can perceive and describe the size, the shape, the distance, the color, the speed of movement, the exact location, the probable mode of attack, the intervening obstacles, the direction of approach, the method of locomotion, etc., of the attacking animal. Language enables the organism to communicate and also to perceive and select things about which to communicate. Language not only increases the number and variety of ways of response, but also the number and variety of the things to which the organism is sensitive. (We have here two ways of saying the same thing. An organism is sensitive only when it responds, and it responds only when it is stimulated. Language increases the variability of behavior and this *includes* discrimination.) Man has language and so can see more details than can the chicken-hen. Civilized man has developed more complicated language and so can select out and describe many more details of a situation than can his savage brother.

This really means specialization. The specialist discriminates in a narrow range of stimuli from a matrix of stimuli because he has developed the language necessary for so doing. (It should be remembered that this language need not be verbal. Much manipulating behavior is of a language nature, but the manipulating is usually directed by implicit or subvocal verbal language.) The non-specialist cannot make such discriminations because he cannot isolate and describe the necessary details. All the details have equal stimulating value. He has not developed the specialized language behavior necessary for such fine discriminations.

This does not mean that specialization necessitates a new vocabulary or that learning a specialized vocabulary is all that is necessary for specialization. It does mean, however, that specialization is impossible on the human level without *thinking,* which we are about to explain as a form of language behavior. Thinking or implicit language behavior is the means by which individuals learn to become specialists.

C. The Problem-Solving Value

Man is said to be the only rational or thinking animal. Now what does this mean? What is the process of thinking? Perhaps the most outstanding authority on thinking, John Dewey, has identified it with problem-solving. To think is to solve problems. Dewey

analyzes the process as follows: "(1) a felt difficulty (or the 'sense of a problem'); (2) its location and definition; (3) suggestion of a possible solution; (4) development by reasoning of the bearing of the suggestion (or a 'careful survey, examination, inspection, exploration, analysis of all attainable considerations which will define and clarify the problem in hand'); (5) further observation and experiment leading to its acceptance or rejection."[5] We can conclude, perhaps without disagreement, that the process of thinking is essentially identical with the process of problem-solving. We shall now investigate the *method* of problem-solving.

Various experiments indicate that animals solve problems by the method of trial and error. Observe a rat while he is learning to run a food-maze. He will try all the pathways, many of which will be cul-de-sacs, until he is rewarded with success (the solution). Thorndike found in his now famous experiments with cats escaping from a puzzle box that the process was simply one of trial and error. The cats tried a great many ways of escape and finally were successful. In Thorndike's words, "It (a kitten in the problem box) tries to squeeze through between the bars, claws at the bars and at loose things in and out of the box, stretches its paws out between the bars, and bites at its confining walls. Some one of all these promiscuous clawings, squeezings, and bitings turns round the wooden button, and the kitten gains freedom and food. By repeating the experience again and again, the animal gradually comes to omit all the useless clawings, and the like, and to manifest only the particular impulse (e.g., to claw hard at the top of the button with the paw, or to push against one side of it with the nose) which has resulted successfully."[6]

It is true that Koffka has criticized[7] Thorndike's conclusion that animals solve problems by trial and error, but he has really presented no contrary evidence. Because Koehler's experiments with apes[8] showed that they sometimes arrived at solutions suddenly, Koffka interpreted this to mean that they had "insight." Insight has been variously defined, but Koffka gives it a vitalistic meaning. He takes

[5] From *How We Think*, (Heath, 1910), 72. Quotations in parenthesis are from *Democracy and Education*, (Macmillan, 1916), 176–77.

[6] E. L. Thorndike, *Educational Psychology, Briefer Course*, (Teachers College Press, 1915), 129.

[7] In *The Growth of the Mind*, (Harcourt Brace, 1924), 153f.

[8] Reported in *The Mentality of Apes*, (Harcourt Brace, 1927).

insight to be a sure sign that the behavior is not mechanical. He is simply making a modernized attempt to prove a vitalistic postulation. As Weiss says, "Often it is difficult to trace out and describe all the preceding steps in the solution of a problem. In such cases the solution seems to come all at once, without cause. This is what is called 'insight.' Insight only means that we are unable at the moment to describe all the partial stages in the solution behavior."[9]

So it would seem that the evidence against trial and error as the method of animal problem-solving is anything but convincing. The animal tries out possible solutions (or what are possible solutions *for him*) until finally he tries the proper one. If the problem is simple enough so that he can "see the relationship involved," he will appear to behave in a non-mechanical fashion, but this is only apparent and not a reality. The animal always solves problems by trial and error whether he can understand the relationships involved or not.

Now let us observe the method by which the human being solves a problem. Instead of making a whole series of overt trials, as do the lower animals, he *makes a series of language trials until he reaches a language solution.* He then tries this solution out overtly or actually, and if it is successful, the solution behavior, of course, ceases. If not, he makes another series of language trials, and again tests out the successful one. This process continues until the problem is solved. The only difference between human and lower animal problem-solving is that man uses language and thus eliminates much overt trial-and-error behavior. He makes his trials and his errors vicariously. A specific illustration will perhaps make the method more clear.

Mr. A. returns from a train trip with just five cents in his pocket. The street car fare to his home is eight cents and the taxi fare much more. He faces a problem of some magnitude. But instead of making a number of overt trials immediately, as would a lower animal, Mr. A. sits down in the station waiting room and "thinks" or talks to himself about the problem. If he is a careful thinker, he perhaps starts out by stating the problem very carefully and exactly. This corresponds to Dewey's second step as quoted above. He then states the *first* language trial solution, which is to get a check cashed in the station. This is Dewey's third step. However, he remembers

[9] An unpublished statement made to the writer.

having seen another man on another occasion try the same thing but without success. This is Dewey's fourth step. He concludes that this trial solution would fail if actually tested, and so he rejects it without further consideration. Note that all this is taking place vicariously.

His *second* language trial solution is that he will try to cash a check at the D— hotel. This also fails, because the hotel is too far from the station (ten blocks). His third vicarious trial is that he will get on a street car and tell the conductor that he is shy three cents and will pay him at some later time. This fails because he does not "have the nerve" to try it. Note that all of his trials so far have been vicarious or language trials. He has not moved from his seat in the station waiting room.

His *fourth* language trial is to call his brother and ask him to drive in for him. This trial is accepted on the language level as being the solution of the problem. He then makes his *first* actual or overt trial by going to a telephone to call his brother. However this trial fails when he finds that his brother is not at home.

His *fifth, sixth,* and *seventh* language trials fail on the language level, but the eighth language trial, which is to check his suitcase and walk home, is accepted and becomes the *second* overt trial. He goes to the check desk and is embarrassed to find that he must pay ten cents in advance. The trial immediately fails without further consideration. He returns to his seat for more "thinking" when he sees a taxi drive past. This stimulates him to make the *ninth* language trial, which is to go home in a taxi and pay for it *after* he arrives there. The trial is successful vicariously and so becomes the *third* overt trial. He calls a taxi and finds that this method will solve his problem.

There are several things about this solution behavior which should be noted carefully. First, the trials were mostly made vicariously and so took but little time and effort. Furthermore, the language failures did not have the disastrous results they might have had if the overt trial had been actually made. Second, each language trial and error helped to define the problem more carefully and exactly. It became better understood as each trial was made. Mr. A. became more and more acquainted with the importance of the various phases of the problem. Third, there is no evidence that Mr. A. behaved in a vitalistic manner. The successful trial showed no more insight than the unsuccessful ones. In fact, the solution

trial was suggested by the sight of the taxi. The entire process of human problem-solving is trial and error behavior which differs from that of the lower animals only in the use of language. Dewey says, "When the introspectionist thinks he has withdrawn into a wholly private realm of events disparate in kind from other events, made out of mental stuff, he is only turning his attention to his own soliloquy. If we had not talked with others and they with us, we should never talk to and with ourselves."[10]

So to the query, what is thinking, the behaviorologist answers that it is problem-solving by the process of language trial-and-error behavior, whether that behavior be explicit (so that it can be observed) or implicit (and as yet irreducible to exact physico-chemical description). Thinking is the use of language and it is restricted only to language-using organisms. Those animals that can solve their problems of ecology by language have a great advantage over other animals. They can apparently "foresee" events before they happen.

D. The Generalizing Value

Perhaps the most subtle accomplishment in the whole realm of organic behavior is the ability to generalize or form concepts. Needless to say, it is exclusively a human characteristic. None of the lower animals can make abstraction; in fact, the power of men, even, to generalize has been denied by two eminent English psychologists, Berkeley and Hume. Berkeley thought that it was impossible for human beings to "form the abstract idea of motion distinct from the body moving."[11] The various types of psychology differ greatly in their explanations of this most intricate form of behavior. The behavioristic explanation has already appeared in print elsewhere.[12] It is sufficient here to say that this process of generalization (concept forming) consists of "making responses of a certain type and then labeling them according to social custom. A specific concept can be defined only by naming all the responses and stimuli which are conventionally classified under the concept word."

The process of forming generalizations comprises just about the entirety of education. In fact, it is impossible to be human without the power of abstraction. Suppose we could imagine a man

[10] John Dewey, *Experience and Nature*, (1929), 170.

[11] *Principles of Human Knowledge*, Introduction.

[12] J. Stanley Gray, "A Behavioristic Interpretation of Concept Formation," *Psychological Review*, Vol. 38, No. 1, (Jan., 1931), 65-72.

without this power. He could not profit by past experience except in those situations which were identical with past situations. He could not formulate laws or rules about anything. He would be entirely without the power of reason, which in reality is the process of abstracting and forming generalizations. Some writers claim that the power of generalization is the highest stage of behavior yet reached in progressive organic evolution, and Judd considers it to be the "highest aim of education."[13] Dewey explains that "Generalization is essentially a social device. When men identified their interests exclusively with the concerns of a narrow group, their generalizations were correspondingly restricted. The viewpoint did not permit a wide and free survey. Men's thoughts were tied down to a contracted space and a short time—limited to their own established customs as a measure of all possible values. Scientific abstraction and generalization are equivalent to taking the point of view of *any* man, whatever his location in time and space. While this emancipation from the conditions and episodes of concrete experiences accounts for the remoteness, the 'abstractness,' of science, it also accounts for its wide and free range of fruitful novel applications in practice."[14]

In conclusion, we have observed that those protoplasmic movements conventionally designated as language have certain values which have enabled man to build what he calls civilization. These values are not distinct but have here been isolated for clarity. Together they constitute those distinctly human characteristics which have caused some to postulate further uniqueness. They are the product of a mechanical complexity of protoplasm moving through space and they have distinguished this complexity as the highest stage of organic evolution yet reached.

[13] C. H. Judd, *Psychology of High School Subjects*, (Ginn, 1915), 424.
[14] John Dewey, *op. cit.*, (1916), 265.

SPEECH AND HEARING*

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I SHALL attempt this afternoon to take our bearings as to our progress in the voyage toward a complete understanding of the relation of hearing to speech, and to chart out the course through the "N. W. Passage" that, it seems to me, we must follow as we go on from our present position 23 degrees, 20 minutes, and a few seconds west of the prime meridian of factual investigation in this field, and not quite as far north of the equator of *mechanical* and *technical application* of learned facts. Those were our starting points. On the prime meridian we knew just one thing: that there were certain folks who were "deaf" and some who were "deaf and dumb." And on the equator we had for mechanical and technical equipment, Aunt Mary's cloth-covered dipper that you so solicitously found for her when you wanted to borrow fifteen cents to put into the collection plate at church, but which, at certain other times, you were glad she did not have with her. We have gone a long way since those days; and when in this paper I say what "we" have done, I do not mean by "we" Charles Augustus and his monoplane, but every worker in the field of speech and hearing who has made and announced his contribution to the subject. I am giving full credit to them all, though mentioning none by name.

As I announce my bearings for our voyage, you will doubtless perceive many errors due to a personal equation. Make allowances for this equation. May I state it thus: I am interested in the implications for *teachers* of this relation between speech and hearing; and the teachers I have in mind are the teachers of the deaf and hard-of-hearing; and when I talk about the deaf and hard-of-hearing, I am talking about every person who has any sort of auditory deficiency, whether it affects the acuity of his hearing the watch-tick or not—from the persons who are "stone-deaf," of whom there are fewer than we formerly thought, to the persons with deafness to special frequencies, of whom there are many more than we formerly thought.

* Delivered at the Convention of the NATIONAL ASSOCIATION OF TEACHERS OF SPEECH AT NEW ORLEANS, December 27, 1934.

That is my personal equation on this subject, when I take my squints at the sun through the smoke-clouded glass of my textant.

1st Meridian: We have learned that hearing is the chief sensory aid in the acquiring of speech habits, of greater importance than sight, kinaesthesia, or general sensation.

2nd Meridian: We have learned that when hearing is lost after speech has been well established, the vocal control soon deteriorates, but the habits of articulation are much more persistent.

3rd Meridian: We have learned that the hearing of speech is like the reception of radio communication: the receiving instrument must be tuned in frequency to the sending instrument.

4th Meridian: We have learned that the hearing of speech is different from the reception of radio communication in that the latter involves a tuning to but one frequency at a time, while speech involves the tuning of the ear to many frequencies together in a complex of wave forms.

5th Meridian: We have learned that though different languages have somewhat different distributions of the phonetic sounds over the range of hearing, yet the range of speech sounds is from not much below 100 vibrations per second to less than 8,000 vibrations per second—slightly more than six octaves.

6th Meridian: We have learned that in English, though otherwise in many other languages, the critical, symbolical meanings are carried by frequencies in the five upper octaves and the emotional meanings in the lowest octave or octave and one-half.

7th Meridian: We have learned that English speech is patterned more definitely after the requirements of the organs producing it than after the requirements of the organ receiving it; that English speech puts the greatest premium upon the reception of those frequencies to which the ear is least sensitive, and a lesser premium on those frequencies to which the ear is most sensitive; and that, were the English language reconstructed so as to limit its meaning-carrying range to those frequencies to which we are most sensitive, many persons who are now deaf would hear.

8th Meridian: We have learned that when the sounds of speech are mis-heard by the normal ear, some of them are missed because of their faintness, some because of their similarity to other sounds and some because their frequencies are those to which the ear is relatively insensitive, and that in many instances of mis-hearing all three causes are operating at once.

9th Meridian: We have learned that in young children high frequency deafness produces psychological effects that are so similar to auditory aphasia as in some cases to be indistinguishable from it.

10th Meridian: We have learned that some are deaf to certain frequencies not because they lack sensitivity to those frequencies, but because "head noises" generated within themselves drown out the sounds to which they would listen.

11th Meridian: We have learned that the hearing of speech is partly dependent upon the ability of the ear to adjust its sensory machinery to changes in volume, (a lack of adjustment militating against the hearing of speech by causing the acoustic impacts to strike either too forcefully or too lightly against the membranes of the inner ear), and that he is as deaf who hears too loudly, as he who hears too faintly.

12th Meridian: We have learned that the sounds of speech have different intensities, and that, if the hearer be so distant from the speaker that he can hear only the loudest sounds, the faintest would require a hundred-fold amplification to be audible for him.

13th Meridian: We have learned that some deafness to speech is not due to a lack of acuity so much as to a lack of range, and that this lack of range may be in the scope of either the vibratory frequencies or the intensities; i.e., a person may be deaf to speech because he hears only a part of the frequencies of speech, and unfortunately only that part the meaning of which depends upon primary meanings carried by frequencies to which he is deaf; or a person may be deaf to speech because, though he can hear normally all speech frequencies when each is sounded alone, yet, when two sounds of different frequencies are produced together or one immediately after the other, he can hear only the louder, if there be a marked difference of intensity between them, as there often is in speech.

14th Meridian: We have learned that some whose acuity of hearing is unimpaired still are unable to direct their vocal inflections because they lack the ability to discriminate between vibrations of near frequencies.

15th Meridian: We have learned that in speech there are distinct patterns of pressure upon the ear-drum, which the normal hearer does not learn because he does not need to do so in order to understand speech adequately; just as the normal hearer does not learn to read the speaker's lips, because the auditory picture of speech is so much more complete than the visual.

16th Meridian: We have learned that some whose natural hear-

ing of the speech of others is defective, can yet, by means of bone conduction, hear their own speech, and can hear the speech of others by means of instruments that transmit the energy of the air vibrations to the cochlea *via* the cranial bones.

17th Meridian: We have learned that, for the purposes of acquiring speech, one good ear is sufficient, and that he who is slightly deaf throughout the speech range in both ears is at a greater disadvantage than he who, having a completely deaf ear, can hear normally in the other.

18th Meridian: We have learned that hearing is a distinctly central phenomenon and that, if the right ear be insensitive to one part of the range of speech frequencies and the left ear insensitive to another part, the "central ear" will synthesize the impulses from the two ears, producing about the same effect as though these impulses were all coming from the same organ.

19th Meridian: We have learned that for the acquiring of speech, simple hearing of it is not sufficient, but auditory memory and association are necessary; and the child who has a short memory-span for sounds is at almost as great a disadvantage in the learning of speech as he who cannot hear the sounds.

20th Meridian: We have learned that many a child thought to be feeble-minded is only deaf, and is waiting for some teacher to give him the language key by which he can unlock the treasure vault of his intellect.

21st Meridian: We have learned that when the deaf child who has previously learned written language or lip-reading acquires hearing, he must learn the meanings of the sounds he hears and correlate them with the visible symbols with which he is already familiar, just as a hearing child who becomes deaf must learn the meanings of various *lip positions* he observes and correlate them with the auditory symbols that he has previously known.

22nd Meridian: We have learned that, though serious defects in hearing cause defects of speech, there is a minimum of hearing beyond which improvement of hearing will not improve speech; i.e., there is a correlation between defective hearing and defective speech, but not between superior hearing and superior speech.

23rd Meridian: We have learned that defective hearing is not only quantitatively correlated with defective speech, but also qualitatively, so that one may often infer from the speech symptoms what particular auditory deficiencies the patient has.

Here is where we are. Now what meridians shall we cross as we go on from here?

24th Meridian: We need to learn more about the cause, prevention, and cure of auditory deficiencies of all kinds. This is obvious; but, since we are teachers, let us pass on to other needs, assuming that we shall have the incurable deaf with us at least until most of us have passed beyond the River, and, it may be, even after that.

25th Meridian: We must learn for English, and then for other languages, just what frequencies the child needs to hear in the learning of speech, so that we can know how much the defect of his speech is due to his defect of hearing and how much to other causes.

26th Meridian: We must learn more about the acquisition of hearing. Are all frequencies heard by the child of one year or does he acquire hearing of them as he grows older?

27th Meridian: We must learn whether the minimum auditory essentials for the understanding of speech are the same as for the learning of speech, or whether there are acoustic components of our speech that lend it beauty and interest without directly contributing to the meaning—acoustic components, failing to hear which the child does not learn speech adequately, though he understands it normally.

28th Meridian: We must develop a test by which we can determine the range and speed of adjustment of a person's ear to differences in intensity. The question of how great a differential may obtain between two simultaneous sounds, or between two sounds produced one after the other, before the louder masks the softer in the hearing of a given person, is an important one—probably as important, in evaluating the subject's ability to follow a rapidly changing acoustic picture such as speech, as is the question of how faint a sound can be heard when that one sound is produced alone.

And that is the farthest westward I can clearly see. Now let us note what parallels we have already crossed.

1st Parallel: We have invented and developed many instruments for the amplifying of speech sounds so that the deaf and the hard-of-hearing may, if possible, have the advantage of an auditory stimulation from speech of an intensity equal to that experienced by the normal hearer.

2nd Parallel: We have developed two main types of amplifying apparatus, the electrical audiophone and the speaking tube. We have learned that for teaching purposes the effects of these two types are different; the audiophone affording great volume but failing to transmit the pressure patterns of speech, the speaking tube affording too little volume for some uses, but capable of transmitting the pressure patterns.

3rd Parallel: We have learned that the chief reason for the exasperating slowness of learning of speech by the deaf is the paucity of their experiences with speech. A deaf child who hears speech, through electric amplifiers, only 10 hours a week cannot begin to compete with a normal child who hears it 90 hours a week with no "static" in his "head-set."

4th Parallel: We have developed several formulae by which we evaluate from audiometric readings a person's practical hearing for speech. The formulae, however, are roughly empirical.

5th Parallel: We have instruments for measuring the acuity of hearing at different vibratory frequencies; these are called audiometers.

6th Parallel: We have instruments and techniques for testing the discrimination of the ear for changes of pitch in the so-called fundamental range, differentials from A at 435 usually being the ones employed in this test.

And this is as far as we have progressed northward. From here we should cross the following parallels:

7th Parallel: We must learn better than heretofore to adapt our training of speech (not only for the deaf and hard-of-hearing, but also for the normal child) to the particular needs and abilities of the child to be trained, combining as far as is necessary and possible speech example with training in the interpretation of the pressure-patterns of speech and in the recognition of the positions of the lips, tongue, jaw, velum, and larynx requisite for the various sounds of speech.

8th Parallel: We must learn, better than heretofore, when amplification of the speech example is necessary in teaching, to suit the amplification to the deficiencies of hearing of the child to be taught, and not to amplify the frequencies that the child hears with normal acuity; or in other words, we must remember that the teacher's hearing is no guide as to the quality of the amplification required;

an energetic whisper may be a much better amplification for the teaching of a given deaf child than the output of a powerful loud-speaker.

9th Parallel: We must learn the methodology of teaching the child, deaf from infancy, the meanings of the sounds our improved mechanical devices enable him to hear. The development of the electrical hearing aids will make this need even more pressing as advances are made in equipment affording hearing to persons who have previously developed language habits on a non-acoustic basis.

10th Parallel: We need scientific formulae by which we can translate the results of our hearing tests into ratings of practical hearing for English speech, as well as similar formulae for other languages.

11th Parallel: We need an audiometer by which we can test the effect of simultaneous stimulation of both ears. (The present standard audiometer is largely the product of experimentation to improve telephone circuits employing non-aural phones.) This new audiometer would give us a rating of hearing loss of the "central ear," a rating which would be of much greater importance to us in this field than ratings of the hearing losses of the two ears, for we hear most speech with both ears.

12th Parallel: We need an inexpensive alarm system for traffic signals, automobile and locomotive warnings, clocks, fire alarms, etc., to which the deaf and hard-of-hearing will be sensitive and to which the hearing person will not react with fear, but which will in its reliability take some of the lurking fear of danger out of the lives of the deaf and hard-of-hearing.

13th Parallel: We need to develop the science of correction of hearing by mechanical aids to something comparable to correction of vision by refracting lenses built after individual prescription. These aids should be inexpensive, light in weight, compact, inconspicuous, and dependable,—requisites that are now impossible of fulfillment. Hence we need new discoveries and inventions upon which such improvements can be based. These hearing aids, though individually prescribed, should possess a mechanical standardization that will permit an interchangeability comparable to that developed in the nursing-bottle, the eyeglasses, the flashlight, and most other modern mechanical conveniences. (No two pairs of glasses are alike optically, but I can get spare mechanical parts for my spectacles installed while I wait in any city of the land, and the lenses them-

selves may be exactly duplicated in 48 hours.) These hearing aids should be so devised that they can be easily "plugged in" on radio sets, telephones, public address systems, and the "deaf" seats in churches and theaters and schools; and these latter instruments and systems should be constructed with the needs of the deaf person and with the design of his hearing-aid as definitely in mind as is consistent with the service to be rendered by them to the persons with normal hearing. When that day arrives, the only difference between the hard-of-hearing and the hearing person will be that one wears wires on his ears and the other's ears are naked. The problem of teaching him speech will be three-fourths solved.

Beyond the twenty-eight meridians and thirteen parallels I cannot guess our course. I leave that to you.

Note of Explanation Concerning the Technical Features of Audiometry Mentioned in This Article

Reference is made in this article to the methods of evaluating the ratings from the audiometer. In this evaluation the first question to ask is: What does the subject tested wish to hear? Most persons wish to hear speech. Before we can evaluate the hearing for speech, however, we must take into account many factors in addition to the audiogram. But, dealing with the audiogram alone, there are five ways in which it may be evaluated. They may be described as follows:

1. *The Western Electric Method.* This is practically a method of determining what the subject's efficiency is in using the telephone, where only one ear-piece is used, and gives us separate ratings for each ear. The readings of hearing loss for the three pitches—512, 1024, and 2048 dv.—are recorded in sensation units, keeping the figures from each ear by themselves. The "hearing loss for speech" for the right ear is the sum of the readings for that ear multiplied by .266. The loss for the left ear is determined in the same manner. No averaging of the two ears is attempted.

2. *Method A.* If the subject desires a general understanding of the emotional and intellectual meanings of the persons to whom he talks, we need to evaluate the entire range of frequencies employed in speech. We first translate the "hearing losses" or "gains" from the sensation units, in which they are recorded on the audiogram, into percents of hearing loss, using each of the frequencies from 64 to 8192, both inclusive, for both ears. Then a list of percentages for the "better" ear is made up by taking the better rating for each of the frequencies. Sometimes the better rating may be of the left ear, and sometimes it may be of the right—it matters not. We take the lower percentage for each frequency or pitch. The percentages from the three highest frequencies, 8192, 4096, and 2048 dv., are each listed twice, because speech sounds in this region are usually very weak in intensity, and because it happens that, in English, these sounds are very important in carrying the critical, symbolic meanings of speech. Then the eleven ratings (the last three of the eight for the "better ear" being doubled) are added, and the sum divided by 11.

This gives us the percent of hearing loss (or gain) for English speech of the "better ear."

Now, this rating shows about what the subject would be able to hear were both ears equal for every frequency. Some discounting must be done to express the influence of the "poorer" ear upon the efficiency of the hypothetical "central ear." It is obvious that a person having two good ears will hear better than a person having one good ear and one ear that is totally deaf; but how much better? Certainly not twice as well. So far as the interpretation of speech is concerned, leaving out the directional significance of audition, the difference between the hearing of such persons will be nearer 10%. So, in the weighting of the audiograms from the two ears, they are treated exactly the same, up to the point of combining the final percentage ratings of the "better" and "poorer" ears. That of the better ear is multiplied by 10, then added to the rating of the poorer ear, and the sum divided by 11. This gives us our final rating by Method A.

3. *Method B.* In case one wishes to know only what facility the subject possesses in the interpretation of *English*, as a symbolical language code, in its purely intellectualized and arbitrary meanings, a method similar to A is employed, except that only those frequencies are employed that are of arbitrary significance in English speech; viz., 512, 1024, 2048, 4096, and 8192 dv. The weighting, too, differs from Method A. After the "losses" or "gains" in sensation units are translated into percentages for each frequency, those of the highest frequency are multiplied by 4; those of the next highest by 2; and the rest by 1. The percentages from the "better ear" are kept separate from the "poorer ear." After the weighting of the higher frequencies, the percentages are added and the results divided by 9. Then these average percentages are combined as in Method A to give the final rating by Method B.

4. *Method C.* This is a way of estimating hearing for the ordinary control of the subject's own speech, and for his learning of new speech sounds. Here the influence of the "poorer ear" is negligible, as is also that of the perception, or lack of it, for the frequencies below the speech range. Consequently only the percentages from the "better ear" are taken; the rating from the audiogram of the pitch 64 dv. is omitted; the seven remaining percentages are added, those of the three highest frequencies being each taken twice, as in Method A, and the final rating being determined by dividing the sum by 10. This gives us our answer in terms of Method C.

5. *Method D.* This is an evaluation of the subject's ability to analyze all phases of the speech of others for the purpose of developing artistic speech for himself. Even the lower frequency is important here, for that carries considerable of the sonance of the voice. This method is exactly the same as the estimation of the "better ear" of Method A. The average percentage for all the frequencies, taking the three highest twice each, and ignoring the "poorer ear," is the rating afforded by Method D.

These methods are illustrated by computations from an actual case from my files. See Table 1.

EXAMPLES

Original Data from Audiogram

Hearing loss in sensation units (S. U.) and interpolations into percentages of hearing loss.

Pitch in Cycles	Right Ear S. U.	Right Ear Percent	Left Ear S. U.	Left Ear Percent
64	-5X	-8	0	0
128	0	0	-5X	-6
256	10	9	0X	0
512	5	4	5X	4
1024	10X	8	15	11
2048	15X	12	20	16
4096	20X	17	25	21
8192	25	27	20X	21

"Hearing loss for Speech" by Western Electric Method:

Right	Left
5	5
10	15
15	20
3|30	3|40
10	13.3
x.8	x.8
8.0% loss	10.64% loss

Method A.

Better Ear		Poorer Ear	
-8	-8	0	0
-6	-6	0	0
0	0	9	9
4	4	4	4
8	8	11	11
12	24	16	32
17	34	21	42
21	42	27	54
11|98.0		11|152.0	
8.9		13.8	
x10			
89			
+13.8			
11|102.8			
9.35% hearing loss			

Method B.

Better Ear		Poorer Ear	
4	4	4	4
8	8	11	11
12	12	16	16
17	34	21	42
21	84	27	108
9|142		9|181	
15.8		21.1	
x10			
158			
+21.1			
11|179.1			
16.3% hearing loss			

Method C.

-6	-6
0	0
4	4
8	8
12	24
17	34
21	42
10|106	
10.6% hearing loss	

Method D.

-8	-8
-6	-6
0	0
4	4
8	8
12	24
17	34
21	42
11|98.0	
8.9% hearing loss	

Summary.

Western Electric, for telephone use, Right 8.0%; Left 10.64%.
A. Understanding of speech, 9.35%; B. Perception of vowels and consonants, 16.3%; C. Hearing for learning speech, 10.6%; D. Hearing for artistic speech, 8.9%.

It should be noted that these methods of evaluating the audiograms are made partly empirically and partly *a priori*. They are suggested formulae and are subject to considerable alteration and adjustment to meet the needs of an experimenter or clinician who attempts to balance them against his own special criteria of good hearing or of good speech. It should be remembered further that one cannot rely upon a single audiogram for an accurate measure of speech perception. As many audiograms should be taken as necessary, in order to secure a rating that shows a fair average. There is often question as to the accuracy of such an audiogram obtained from a young child. One can test the accuracy of such an audiogram by checking it once or twice over a period of weeks. The more variable the several audiograms are, the larger the number of tests necessary to arrive at an accurate average. With many persons, the repetition of the testing is necessary in order to obviate the effects of temporary conditions of the auditory apparatus.

A LABORATORY IN PERSUASION

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THE Sunday nearest Armistice Day—8:30 in the morning. Twenty-five or thirty young people gather in a Lincoln Hall classroom, receive Red Cross buttons, official workers' badges, a supply of pencils and pledge cards, and start out, in cars furnished by Red Cross supporters, to small towns in various parts of Champaign County. Each student appears before one or two church audiences, giving a seven-minute speech asking for one-dollar Red Cross membership pledges. The cars return, the pledge cards are counted and returned to the county headquarters for distribution to local workers, and another "speaking expedition" is over.

Such are the outward signs of an experiment in practical persuasion which we at Illinois have conducted for three years, beginning in 1931. For us, it has helped to answer two difficult questions in teaching persuasive speaking, (1) how to create a real speech situation to supplement the more or less artificial classroom experience; and (2) how to measure with rough accuracy the results of persuasive speeches.

Of the twenty-five or thirty students, about twenty are from Speech 6, Persuasion and the Forms of Public Address. Other advanced students round out the group. They speak in thirty-five to forty churches, all of them in small towns or country districts. No speeches are given in Champaign-Urbana, because the Red Cross there derives its support entirely from the Community Chest. These

students appear before small audiences, for the most part not exceeding twenty adults, and probably not averaging more than ten. The total adult attendance for the whole group is about 400, not more.

A few more statistics: the county quota for Red Cross memberships, by whatever means secured, is 1200. Prior to 1931, local workers, canvassing their own neighbors, were used exclusively. In 1930 and 1931 about 600 members were secured. This year the total will pass 800. Red Cross officials believe that this increase is mainly due to the student speakers. Otherwise no change has been made in the methods of conducting the campaign. The students brought home 105 paid memberships in 1931, 150 in 1932, and on November 12 this year, 227.

A Red Cross speech, seeking memberships, is an assignment in Speech 6, an advanced course, but no member of the class is compelled to appear in public. With the exception of one or two, however, students have seemed anxious to take part, realizing the value of the opportunity for practical speaking experience, and welcoming the chance to do something for a good cause.*

All details of the project are carefully planned. The Red Cross secretary and the chairman of the annual roll call make appointments with the various ministers, and inform the local workers of the purpose of the speakers. Every attempt is made to enlist the co-operation of the local workers—sometimes a difficult matter. Letters to the ministers confirm the place and time of the appointments, and ask for a favorable introduction of the speaker. Publicity is given the speakers in papers circulating through the county, and radio speeches have been used to spread advance information. Each speaker knows the name of the minister and of the local workers, and mentions them prominently in his talk.

Material for the speeches is furnished by the Red Cross secretary, and consists of the following: (1) national printed material about the work of the whole organization; (2) mimeographed reports of the work of the local chapter; and (3) mimeographed copies of the better speeches of former years. This information is distributed to the students in Speech 6 and to the others who are to assist, about three weeks before Red Cross Sunday.

* As a matter of fact, members of this year's class, long before I had mentioned the project, asked whether they would have the chance to make Red Cross speeches, like previous classes. I have always made it clear that there is no compulsion to participate, and have excused everyone who did not wish to do so.

The speeches are given in class beginning two weeks before the date of the "expedition." They are planned co-operatively, to the extent that ideas are interchanged and mutual suggestions made. Every effort is put forth to bring them up to a common level of excellence, so far as that is possible. Certain rhetorical techniques are used in all of them. The class as a whole decides what facts and what appeals should probably be stressed for best results. Since the class consists of about twenty students, and since the speeches are short, it is possible to have them given at least twice before the day of public presentation. In addition to having carefully prepared talks, speakers are trained to answer possible questions.

We believe that the increase in returns which has been shown in 1932 and in 1933 is traceable to improved methods of arranging details and of preparing the speeches. Increases have been more or less uniform over the whole county. Of course, the measurement of results is only roughly accurate, but the following conditions tend to make it more significant than usual:

(1) Similarity of audiences in size, occupational interests (farming), economic status (mostly poor), and environmental conditions.

(2) Similarity of the speakers and speeches. Although there are wide variations in individual ability, the co-operative planning of speeches, and the fact that Speech 6 is sufficiently advanced so that the poorest students usually do not reach it, tend to equalize conditions.

(4) There are enough speakers and enough churches to offset purely accidental factors, in part at least; and results from year to year in individual churches can be compared.

(5) The preliminary publicity tends to equalize conditions.

Because the students realize that conditions are fairly equal, they attach considerable significance to the results, general and comparative, and, we think, rightly so. This is a strong motivating feature.

On the day after the speeches, written reports are made, covering the difficulties encountered, mentioning the strong and weak parts of the speeches as the speakers saw them, and giving suggestions for the improvement of methods. General discussion follows, one of the most lively and interesting of the entire course. A realization of the value of sound persuasive methods, of good delivery, and of thorough preliminary arrangements, is shown. An actual speech experience has driven home the importance of these things in a way that it is hard to duplicate in ordinary classroom work. The general speech efficiency of the class always shows a marked improvement after this project.

Students' reports always stress the need of definite appointments, a friendly introduction, co-operation from ushers in passing out and collecting pledge cards, sympathetic attitude on the part of the local workers, and the advantage of a church audience (mostly adults) over a Sunday school audience (mostly children). In individual cases, cold churches, scattered audiences, bad impressions created by tactless introductions, and the like, are emphasized. In short, the importance of "external conditioning factors in audience behavior" has been established.

Not because their conclusions are necessarily right, but because of the trend of thought they show, a digest of some of the observations of students on rhetorical techniques may be illuminating.

(1) Real sincerity and feeling on the speaker's part count more than anything else.

(2) Logical and emotional appeal must *both* be used. Some people react to "facts and reasons," others to emotional material.

(3) The "extended example," describing some specific case of Red Cross relief work in detail and with imagery, is a very important device.

(4) The *local* work of the Red Cross, the fact that the *local* solicitor will get credit for all memberships secured by the speaker, and the fact that a generous share of the money is used *locally*, are important. Use local and nearby examples.

(5) In these times, stress relief work and the distribution of food and clothing, rather than soldiers' aid, home hygiene, life-saving, etc.

(6) Statistics *are* persuasive if put into terms of loaves of bread, articles of clothing, etc.

(7) Stereotypes, such as "Red Cross on the battlefield," "greatest mother in the world," "our flag," and all religious symbols, are effective.

(8) Employ plenty of suggestion. Get the audience to do something together, to have a common feeling. Use the "yes-response," the "putting-it-up-to-you" technique, and the dramatic example. The right use of pledge cards and pencils is important.

These are typical of the thoughts of students after they have tested the methods taught them—and incidentally, confidence in those methods is increased.

We wonder whether other departments are using similar projects to create real and vital speech situations, and to get a fairly accurate measure of results. What we began as almost an offhand experiment in 1931 has become a very useful and stimulating part of our course. We feel confident that we shall learn how to teach this course better as a result of continued study of results and continued experimentation in methods. And—the students, apparently, like it. At least, they tell the professor so!

AN EFFICIENT TEST OF DICTION

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NOT infrequently an accurate knowledge of the speech habits of some individuals is desired. It may be that the problem arises in trying to decide which speech course to recommend to a student or where to advise him to begin on speech improvement. Sometimes attainment of a definite standard of excellence is set up as a prerequisite for certain advanced or professional training. Sometimes such standards are taken seriously by those outside of the speech field. For example, it is required that all applicants for teaching positions in certain public schools be able to pass a speech test. Most of us would agree that for certain other positions, where frequent speaking is required, good speech should be a definite qualification. This is recognized in the selection of radio announcers, telephone employees, *et al*, in certain centers.

Wherever the problem of judging diction arises, and especially when it is necessary to evaluate the speech of a large number of individuals, one immediately faces the usual difficulties of constructing a measuring devise; for a speech test, whether well or poorly conducted, is an attempt at measurement. It is the attempt to measure speech along a continuum of acceptability-unacceptability on the basis of the standard considered passable. One's first impulse may be to seize a book and ask the victim to "read a few lines." And like first impulses in other fields of measurement, this method may or may not result in finding material to read which contains all sounds difficult for the subject. Moreover it would be well-nigh impossible to make a comparable test at a later date, and in the conscientious attempt to overlook nothing, considerable time may be consumed. A more sophisticated device is in use in some speech clinics. This consists of a series of sentences, each emphasizing words containing a given sound. An intelligent subject, aware of taking a speech test, often "catches on" and assumes a guarded pronunciation.

The Washington Square College speech test was developed as an attempt to eliminate haphazard procedure, to furnish a basis for reliable recommendations to students, and to make possible accurate records of the speech habits of hundreds of students each year.

The test consists of (1) a single page of typewritten material, single-spaced, and (2) a record card. The material is ample for several observations of each phonetic element, but the whole test requires only five minutes to administer. Moreover, the subject seldom becomes aware of the systematic construction of the material. This construction, which emphasizes one sound after another in the order in which they appear on the record card, is largely camouflaged for the person reading the test because he finds, instead of a series of disconnected sentences or phrases calling attention to pronunciation, paragraphs of connected thought the meaning of which arouses his interest. Several forms of this test have been constructed to reduce to a negligible quantity any memory effects on a re-test or any specific coaching for the test by persons to whom it has been given. The material on the typewritten page is not an exhaustive list of all sounds in the language, since certain sounds are rarely found to be incorrect and would be readily detected during the reading if they did happen to be faulty. Rather, the test emphasizes those elements which are of greatest importance in the sense of being frequently defective in the region where the test is used. A sample paragraph of the test material, extracted from the middle of the text, and obviously designed to check on the sounds [t] and [d], reads as follows:

Now a tentative attempt to terminate errors already acquired may be facilitated by attending in detail to the suggestions of one qualified to pass on these errors, temporary and unintentional though they may be. By definite, direct analysis, any deterring faults are thus immediately detected and readily avoided.

The record of this test is kept on a 3x5 card, the front and reverse sides of which provide for certain data, as shown:

FRONT

Name ..... Date .....
Class ..... Major .....
Address .....

	−2	−1	0	1	2
RATING	|	| ← FAIL	PASS → |	|	|
	Bad foreign accent or extreme dialect	Noticeable New York accent or conspicuous fault	Good speech; no conspicuous fault		Excellent; inconspicuous; no noticeable errors

Recommendation .....
.....

Speech courses: Speech 1 2 23
Additional practice sessions 1 semester 2 semesters

BACK

SPEECH SOUNDS

			VOICE		
			Quality	*Pitch*	*Force*
i	aɪ	Unvoicing	Hoarse	High	Weak
ɪ	aʊ	Glottal stops	Strident	Low	Over-loud
ɛ	eɪ	before vowels	Nasality	Monotonous	
æ	oʊ	substitute t	positive	Falling	
u	ɔɪ	Intrusive r	negative	inflection	
ʊ	t^{s}, d^{s}	Over-			
ɔ	ŋ	assimilation	Throaty	Foreign	
ɑ	l	Indistinctness		intonation	
☐ ɜ	r	Nasalized			
☐ ʒ	θ, ð	vowels			
ə	s, z	Foreign accent			
ʌ					
☐ er = ɚr		Mispronoun-			
☐ er = ə		ciations			
		lisp, hiss			

It will be noticed that this small card, readily filed, is adequate for a detailed record of errors and undesirable qualities. Its validity and reliability are of course dependent upon the skill of the examiner, but the examiner's judgment is aided by an analysis which parallels the occurrence of phonetic elements in the speech test material, and the other items may be checked very rapidly by one familiar with the card. The chance that a given item will be overlooked due to ill-chosen material or the examiner's failure to think of it are thus reduced to a minimum. This record card has proved extremely useful by providing a rating scale for a (1) general summary of an applicant's speech, (2) a detailed record to re-enforce this general estimate as well as to provide data for guidance and improvement, and (3) a permanent semi-objective record as a basis for evaluating an individual's progress and the effectiveness of speech work on groups.

It is clear that the specific use to which a speech test is to be put, the region in which it is used, etc., will determine the items which must be included and the standard which is considered acceptable. Hence no test can claim to solve everyone's problems. However, on the basis of considerable experimentation and revision, we have found the present form of the Washington Square College test to be a significant improvement, and believe that its main features offer a useful basis for the particular modification needed by others who are asked to judge diction.

TWO YEARS' EXPERIENCE WITH RECORDING EQUIPMENT*

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MANY years ago the Speech Department of Washington Square College, New York University concluded that, in connection with speech improvement courses, there was definite need for the recording of student voice and speech. The Homophone and the Dictaphone were both used, with considerable labor and unsatisfactory results. And so two years ago it was decided to purchase electrical transcription equipment for recording on aluminum discs. Since then the Department has purchased all the equipment deemed necessary to get adequate results and has had two years' experience in its use. Data have been kept on costs, numbers of students recorded, types of courses in connection with which recording has been undertaken, and the various uses of the equipment. By obtaining student and faculty opinions, an effort has been made to determine results. The purpose of this paper, therefore, is an attempt at a complete survey of the characteristics of that equipment, its advantages, limitations, and results.

The fact that modern electrical engineers have been able to build such transcription equipment that a record can be made with ease within a few minutes and immediately played back to the student, using unbreakable records, which are, for our purposes, relatively permanent, and can be stored by the thousands in one filing cabinet; and the fact that the machine records with good fidelity to tone and with a relatively adequate high and low frequency range, are distinct scientific achievements, useful educationally.

The old commercial wax record had a range of from about 100 to 4000 cycles. I am informed by an engineer[1] who has run tests on such records that most of the records of the best companies do not attain the 4000-cycle level. Even if they were to do so, the range of our latest improved equipment is 85 to 4000 cycles (Diagram I).

* Presented at the 1933 Convention of the NATIONAL ASSOCIATION OF TEACHERS OF SPEECH in New York City.

[1] L. B. Cornwell, The Amplion Products Corporation.

High frequency consonants, accordingly, are as well recorded on aluminum as on wax, with but a fraction of the expense.

I. Equipment and Costs

The instruments and materials used for recording and for equipping the recording studio, with a statement of cost for each item, follows:

Recording Equipment

Amplion Recordovox (as purchased in 1931)	$480.00
A perforated steel cabinet mounted on rubber-tired wheels, enclosing the following:	
12″ turntable driven at 78 R.P.M. by a 1/32 H.P.[2] induction motor	
Magnetic cutting unit	
Magnetic pick-up for play-backs	
Radio tuner capable of 6 watts output	
10″ electro-dynamic speaker	
Control panel with switches, jacks and meters	
High gain amplifier designed on the Loftin-White circuit with two 50 power tubes in push-pull, giving approximately 15 watts of undistorted output	
Power supply for the amplifier, using two half-wave rectifying tubes	
Power supply for the microphone circuit, using a full-wave rectifying tube	
Amplion model JM carbon microphone with floor stand	40.00
Amplion model JM breast type carbon microphone	22.50
10″ electro-dynamic portable loud-speaker	15.00
Specially designed high fidelity low-inertia dynamic loud-speaker	130.00[3]
Diamond point needle, Model No. 3 Amplion	5.00
500 watt Janette D.C. to A.C. rotary converter	79.00[4]
Sound box of ¾″ Celotex for converter	5.00
Aerial for radio reception	
Total cost of recording equipment	$776.50

Room Equipment

51 yards of 50-inch monk's cloth draperies for accoustical treatment of the laboratory (recording studio), size 14′x12′x12′	$ 40.00[5]

[2] Note item 4, addenda.

[3] Radio Engineering Products Co., 7002 Ridge Blvd., Brooklyn, N. Y.

[4] The converter, with its sound proof box, is not needed if the building is wired with alternating current. Some manufacturers have made recording machine installations with 75 watt converters, which are entirely inadequate to carry the load of the cutting head.

[5] Four walls completely covered with monk's cloth, the windows with monk's cloth curtains to be drawn during recording, and a rug on the floor. During recordings only the ceiling, the furniture, and the door are undampened. It is considered well to have some hard surfaces to reflect the sound. A room dampened as herein described is in all respects adequate for recording.

Curtain pole and fittings	1.68
Electrical connections between two classrooms and the laboratory	25.00
Four-drawer steel cabinet (for filing recorded discs)	30.40
A large steel cabinet with shelves (for miscellaneous equipment)	23.00
Orthophonic Victrola, spring motor, and mechanical sound reproducer	75.00[6]
Albums for filing phonograph records	4.80
Repair tools	3.25
Needle sharpener	1.50
Reading stand	
Total cost of studio equipment	$204.63

II. Uses

The equipment was purchased primarily for phonetic recordings of students with dialects and speech defects. We discovered shortly, however, that it had other varied possibilities of usefulness to a speech department; that is, the transcription of the address of a student speaking to a class, the transcription of broadcasted radio speeches, use as radio equipment, in radio instruction. The equipment was at once put to all these uses and experiments made. These uses will here be discussed and analyzed separately.

Speech Correction Courses. The College has had during the two years an average of 286 students taking speech improvement courses. In general, these students are preparing to take the exacting oral examination of the New York City Board of Education for license as high school teachers. Practically all in this pre-teaching group enrolled in the course have, in some degree, New York dialect. In addition, there are varied frailties and imperfections of voice, and many lisps.

In the early part of the first semester of each year, each student in these courses goes to the laboratory and reads a passage composed to include phonetically all the errors a New York City student is likely to make. The floor stand microphone is here used. The student stands at a distance of about six inches, so that his voice plays diagonally across the microphone, thus avoiding "blasting." One side of a six-inch record, upon which can be transcribed one minute and twenty-five seconds of material, is sufficient for this recording. The record is filed for a recording on its opposite side in the second semester. About six recordings are made an hour. Many more could be made; but if the operator wants to get the best results, he

[6] The Victrola might be dispensed with, though it frequently proves useful in making volume tests, and in other ways.

must take time to gain the confidence of the student, must break down barriers, and rehearse to get the right volume and rate. The operator who makes the record is not generally the instructor, but a technician who makes records for all instructors.

The instructor later meets with each student individually in the laboratory, plays back the record, points out the student's faults and virtues, relates the difficulties apparent in the record to the instruction he has given in class, and suggests remedies. Most of all, he tries to encourage the student, who may be overwhelmed by what he has heard. Additionally, the instructor needs to explain that the voice on the record bears close fidelity to the student's own voice, and to give reasons why the student does not recognize it. It is an advantage to the instructor to have several other students present, for they will generally corroborate the instructor's statement of fidelity. The instructor can satisfactorily hold no more than about six such conferences an hour.

The advantage to the student of this play-back and conference is that he is made aware of mispronunciations that he may not before have heard in his speech. The record objectifies the whole instruction process.

In the first half of the second semester the other side of the six-inch record is used, the same reading selection being chosen. This is again followed by a laboratory, student-instructor conference, the playing back of both sides of the record, and a check-up on progress. The student can himself see what correction he has made and how far he still has to go to improve his speech.

In the same course a loud speaker is frequently taken into the classroom, plugged into wall sockets connected with the machine in the laboratory, and student recordings are played to the whole class for demonstration purposes. Similarly, Victor records of exemplary speech, and phonetic demonstration records, such as those by Daggett, are played.

The answers to a questionnaire sent to all teachers of the Department of Speech show a unanimously favorable opinion in support of phonetic recordings, and indicate that, in their estimation, the greatest single value of the equipment lies in its use in speech improvement-phonetics instruction. One instructor remarks, however, that the course could be given without the recordings.

The equipment, for adequate recording of these classes, must reproduce differences between vocalized and devocalized consonants; variations in sibilants; other high frequency sounds, such as [k], [g],

[tʃ], [f], [v], [θ]; nasal sounds; throaty voice; forward and back placement; glottal initiation and glottal stops; distortion in vowels; and intonation and inflection patterns. With the exception of a loss of some characteristics of [s], the values of these sounds can be represented with sufficient accuracy for our purposes. The [s] sounds, the frequency rates of which are highest, can be represented partially, with sufficient accuracy for most recordings.

An instrument of this kind is limited in recording and reproducing by the frequency range of its weakest link, though I am reliably informed[7] that other better parts of the equipment can build up some values to compensate to a limited extent for the inadequacy. It will be noted in Diagram I that the weakest link is the cutting-head. The rest of the equipment has the capacity for far wider range; parts of it, the speaker, the amplifier, and the pick-up, are capable of reproducing perfectly, as far as the ear is concerned. If a more efficient cutting-head were devised, a more efficient microphone might be needed. But since the one now used has values far superior to the cutting-head, there is at present no advantage in the use of one with wider range.

Another—until recently—very weak link was the bakelited, fibre reproducing needle, which cut down the effectiveness of the whole and, in addition, increased the scratch noise. After testing many kinds of reproducing needles, we have displaced the fibre needles with the Burmese thorn needle. While the initial cost of the Burmese thorn is somewhat higher than that of bakelited fibre, actual needle expense has been considerably reduced by the change. The life of one thorn is longer than ten fibre needles. Its use is, additionally, a time saver. The bakelited fibre needle must be resharpened for each play-back, while the thorn will play ten or more records without sharpening. One very important feature which recommends the Burmese needle is its very sharp point, which aids in gaining better frequency response and reduces scratch noise.

The magnetic pick-up belonging originally to the set was also somewhat less efficient than a newer type crystal pick-up recently developed. The crystal pick-up has provided a wider frequency range and a stronger reproducing signal, resulting in more faithful reproduction. There seems to be no adequate foundation for the statement of one manufacturer that, due to the delicate balance and light needle pressure of the crystal pick-up, steel needles may be used for alumi-

[7] L. B. Cornwell.

num disc play-backs. Our tests demonstrate that invariably even a single steel needle play-back destroys the sound grooves.

Another weakness is the aluminum record; however, it has apparently far greater potentiality than the cutting head. It is well to note, also, that if the frequency range of the loud-speaker is not as broad as that of the rest of the equipment, the final effect will be limited to its range. The special loud-speaker included in the list of equipment has far wider range (50 to 16,000 cycles) than the best commercial speakers, which rarely go above 4500 cycles. This speaker plainly reproduces high-frequency consonants with greater fidelity and clearness than does the loud-speaker in the Recordovox; however, the joint use of the sensitive crystal pick-up and the high fidelity speaker seems to be, for metal disc reproduction, a too sensitive combination, making far too apparent the metallic noises, the scratch noises, and other extraneous sounds.

As to the total performance of the equipment, a comparison of its frequency characteristics (Diagram I, with the frequency-cycle sound-charts of Diagram II) definitely illustrates its potentialities in reproducing speech sounds. Diagram I shows also the increased range resulting from the technical improvements of the past two years.

Extracts from tables of vowel sounds by Fletcher, Diagram II, indicate that the range of vowels, 375 to 2400 cycles, is neither too low nor too high in frequency range for accurate recording with this equipment, which reproduces with reasonable accuracy between 85 and 4000 cycles. The vowels, therefore, are reproduced with fair fidelity, and, since it is through the vowels that vocal quality is largely represented, the favorable reproduction of voice by the equipment can be readily understood. The tables of consonant sounds of Diagram II show a far wider variation of frequency ranges than the vowels. These tables demonstrate why, when the frequency cycle range extends beyond 4000 cycles, some of the values of consonants are lost.

A comparison of these speech sound charts with the frequency range of the Amplion Recordovox and of that of the older wax recording instruments (such as the old type Dictaphone, which range from 150 to 1800 cycles) will make clear the reason for the greater accuracy of the former over the latter. The older type machine recordings, with values eliminated above 1800 cycles, have little or nothing left of [f] and [s], and change decidedly the character of all high frequency sounds.

DIAGRAM I

	FREQUENCY RANGE		
	1931	RE-BUILT, 1932	RE-BUILT, 1933
Cutting Head	150 to 2600 cycles, peaked 1800	100 to 2800 cycles, peaked 2000	80 to 4000 cycles, peaked 2600
Steel Cutting Needle	50 to 2500 cycles	(no longer used)	
Diamond Point Cutting Needle	50 to 3500 cycles	50 to 5000 cycles	(no change)
Sapphire Point Cutting Needle	50 to 3000 cycles	(no longer used)	
Microphone	50 to 7800 cycles, peaked 7000	(no change)	(no change)
Play-back (pick-up)	78 to 3000 cycles	78 to 3500 cycles, peaked 3000	(replaced with new pick-up)
Amplifier	100 to 4600 cycles	100 to 5800 cycles, peaked 5000	30 to 10000 cycles
Loud Speaker	150 to 3500 cycles	100 to 4000 cycles, peaked 3500	90 to 4500 cycles
Fibre Needles for play-back Aluminum Records	Frequencies above 1000 cycles affected. A probable 6000 cycles.		
New Equipment			
Lapel microphone, Type LM	.....	60 to 6500 cycles	
Portable loud-speaker.....	.....	100 to 4000 cycles	90 to 4500 cycles
Breast microphone, Navy Type	.....	.....	50 to 7800 cycles
High frequency loud speaker	.....	.....	50 to 16,000 cycles
New play-back (pick-up)...	.....	.....	20 to 10,000 cycles
Steel needle for play-back...	.....	.....	Preserves fidelity up to 4000 cycles
Changes in Equipment		Amplifier overhauled to give greater frequency range; change in cutting-head, pick-up, and speaker to give broader frequency range.	New type of radio tuner; new type of power amplifier, giving 15 Watts of audio power; new pick-up, permitting use of steel needles, making possible wider frequency range.
Total Range of Finished Record	150 to 2300 cycles	100 to 2800 cycles	85 to 4000 cycles
Effectiveness of Reproduction	Good understandability, but not natural	Better reproduction of music, clearer consonants and sibilants; the voice of the speaker becomes recognizable; some distortion due to load limit or volume in recording.	Much better reproduction of music; the voice becomes much clearer and more recognizable; clear reproduction of all consonants, with better value of sibilants.

When the words "fair fidelity to voice" are used, it must not be forgotten that the recording and reproduction are by machine, on a disc of metal. Various parts have their mechanical characteristics, which add something to the whole; others subtract. An example of addition is that from the aluminum record. Another is scratch noise, which varies according to the volume of the recording and the playback, the quality of metal, the lubrication of the record, and the kind

DIAGRAM II

Extracts from Sound-Tables by Fletcher[8]

TABLE III

Characteristic Frequency of the Vowel Sounds

Speech Sound	Low Frequency	High Frequency
ū (pool)	400	800
u (put)	475	1000
ō (tone)	500	850
a (talk)	600	950
o (ton)	700	1150
a (father)	825	1200
a (tap)	750	1800
e (ten)	550	1900
er (pert)	500	1500
ā (tape)	550	2100
i (tip)	450	2200
ē (team)	375	2400

TABLE IV

Sound	Throat Resonance	Nasal Resonance	Mouth Resonance
r	500–700	1000–1600	1800–2400
l	250–400	600	2000–3000
n	200–250	600	1400–2000
ng	200–250	600	2300–2600
m	250–300	600	900–1700

Extracts from Further Tables on Consonant Sounds

TABLE V

Sound	*High Frequency*
ba	none
pa	3800
da	3800
ta	4300
ga	1600, 2800
ka	1600, 4200
dtha	4200
tha	none

TABLE VI

Sound	*High Frequency*
va	none
fa	3500, 7000
ja	2600, 5200
cha	3600, 6400
	2800, 4800
zha	3000, 4200
sha	2800, 4600
za	5200, 7000
sa	6000, 7800

[8] *Speech and Hearing*, Harvey Fletcher, D. Van Nostrand Company, Inc., (New York, 1929), 58, 59, 61, 62. (Table reproduced by courtesy of the publishers.)

of cutting and reproducing needles used. High scratch sounds are due occasionally to poor metal in records, but more frequently to the recording of voices that are too weak to reproduce without high volume in playing back the record. This volume, employed to increase the sound, increases proportionately the scratch, to the point of distortion. This may in future be obviated by adaptation of more sensitive microphones to recording machines—for recording in a sound-dampened laboratory—to bring up the recording signal of weak voices.

Besides such mechanical additions, the elimination of all high and low frequency characteristics beyond the limitation of the machine subtracts considerably from the real character of voice. So, even when the voice on the record can be recognized as that of the speaker, the reproduction is never all of his voice, and the instrument has added some mechanical features. But it must not be forgotten that this is perhaps equally true of the average commercial record. Until a range of 40 to 10,000 cycles can be recorded and reproduced on a material that has no sound characteristics of its own, one cannot hope for absolute fidelity.

Foreign Language Courses. Similar to our use of the equipment for phonetic recording was its use by foreign language departments. This opportunity was extended as a courtesy and no charge was made for service. However, while the Department of Speech furnished records for speech students, the foreign language students were obliged to purchase their own. For two years phonetics instructors in the French Department made recordings of forty students' French speech. These teachers believe that the opportunity given the student to hear his use of French aided materially in improving his French pronunciation. Professor E. M. Lebert comments, "The main value of the transcription was in making students hear their voices objectively. In fact, several of them commented on it in these very words. Assuredly such results justify the student's expense and the teacher's time."

Professor Pedro Villa Fernandez, a teacher of Spanish phonetics, made similar recordings for thirty-two students. He attests to the value of the recordings as follows:

> I cannot exaggerate the value of the record transcription in helping the students with their pronunciation of Spanish. Whereas my pronunciation was imitated by the student and to his ear he was reproducing what he heard, upon listening to his own voice on the record he was able in every case to detect his shortcomings. I was amused at the astonishment of the students on hearing

their recorded voices and wondering at their mispronunciation and poor intonation, of which they had not been aware.

The results obtained more than justified the time that I spent and the trifling expense to the student. . . . I found the reproduction of speech satisfactory. Besides the help that it gave the students, it served as a stimulation to them. They were keenly interested in their work and made great efforts to improve, for, as many expressed it, their Spanish as heard by a second party (and as they now heard it themselves) was a caricature of the language.

Use in Public Speaking Courses. Throughout the two-year period, two recordings each year of each public speaking student have been made, in whole or part, of his address delivered to a class. Considerable experimentation was necessary before we began to get the best results. The aim was to get a good sample of the average address of each student. To accomplish this, it was essential that the student should not be conscious of the microphone and should not be limited by it in any way. In the beginning, a carbon microphone, floor stand type, was placed before the speaker. This did not work well. In the first place, the student and the class were both conscious of the microphone. Secondly, the free movements of the student were inhibited, for if he moved too far from the microphone, the recording would be weak. Efforts were made to increase the pick-up range of the microphone. Again, this increased sensitivity was unsatisfactory, for the reason that with the greater sensitivity, room reverberation noises were picked up to such an extent that the entire recording was distorted. Hence, we decided that we must arrange for a recording during which the microphone would not be obvious, yet always reasonably close to the mouth of the student.

With this in mind, we tried the lapel microphone, which is about three inches in diameter and is attached to the coat or frock, some three to four inches from the mouth of the speaker. This lapel microphone had the advantage of being close enough to the mouth to make unnecessary too great sensitivity. So without sacrificing high or low frequency levels, room reverberation noise could be kept at a minimum. The lapel microphone turned out, however, to be unsatisfactory, for the reason that, since it lay immediately over the chest of the speaker, it picked up directly, through the chest wall, chest-sound vibrations which, added to the sounds which came from the mouth, distorted the recorded voice, apparently increasing the low frequency sounds. In general, the lapel microphone seemed to make the student's voice appear more pleasant; but since close vocal fidelity was lacking, the lapel microphone was abandoned for another

device. It is well to note, too, that the lapel microphone picked up strange noises from clothing. When a student made a violent gesture, the rubbing together of his coat and vest might record a sound like a clap of thunder. The lapel microphone, too, seemed to be extraordinarily delicate and was always getting out of adjustment, necessitating frequent servicing charges.

To replace the lapel microphone, a breast microphone was employed, with the most satisfactory results yet obtained. This breast microphone was manufactured for Navy use in connection with loud-speaking equipment. The microphone itself is the Amplion No. JM carbon type, the same model as that mounted on a floor stand in the laboratory, also used originally in the classroom for recording speeches. This microphone is mounted on a metal breast-piece which lies comfortably on the chest. It is in many respects similar to the mouth-piece used by telephone operators, except that it does not rise so close to the mouth. It is elevated some two inches from the chest and is sloped at a slight angle toward the mouth. Thus, the voice plays across the surface of the microphone instead of directly into it. Because of its weight and consequent inertia, it appears to pick up little or no chest or clothing sounds, and thus it affords as satisfactory recordings as the studio carbon microphone mounted on a standard. It is sufficiently close to the mouth, so that, even though the classroom is not acoustically treated, the microphone volume amplitude need not be increased to the point where it will pick up as much room reverberation and classroom noise as when the floor stand type was used. A further advantage of this microphone is that of permitting the speaker to move about the platform while speaking. The flexible electrical cord extending from the microphone over his shoulder to the wall-socket neither interferes with his movements, nor gets tangled in his legs.

"Is not the spontaneous address of the student interfered with by the obviousness of the microphone?" This is a question which might well arise. My experience—corroborated by that of several of my colleagues—has been that, while the student in the first few seconds of his address may be conscious of his recording, in his concentration on his audience and his speech he then forgets entirely the device resting on his chest and speaks quite the same to the class as in his other addresses. Even in the beginning he may be freed from self-consciousness by the instructor's telling him that at some time during the speech a part will be recorded, not necessarily the

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first part. In fact, in six cases out of ten, the student starts to leave the platform in complete forgetfulness that he is attached to the wall by the microphone cable. My colleague, Professor Charles A. Fritz, is of the opinion that there is some self-consciousness coupled with the use of the microphone and that some of the recorded speeches consequently may not be as effective as others by the same student. He does not, however, consider this objectionable, for the use of the microphone as an adjunct to direct-audience addresses has become too common to cause an abnormal or artificial speaking situation in the classroom.

We began these recordings with the one minute, twenty-five seconds of one face of a six-inch record, then tried the seven-and-a-half-inch, which gave two minutes and ten seconds of the speech. Believing that neither of these records gave a fair sample of the student's composition, we ended with one side of a ten-inch disc, the three minutes and twenty-five seconds' duration of which is sufficient to disclose delivery patterns, voice, clearness or faults of diction, and something of composition.

The recordings are intended to be merely incidental to the addresses before the class. Without interfering with the regular classroom program, four, five, or six records can be made in an hour. The first recording of the year is delayed until the middle of the first semester, in order to afford the student an opportunity of adjusting himself to the speaking situation and of having had time to apply instruction. In the year 1932-33, 443 students had a part of two speeches each recorded.

A short time after the recording, the instructor meets in conference in the laboratory a number of students from the same class, all of whom have made recordings. The records are played back for each student, and the instructor gives constructive advice on improvement, and draws attention to virtues and defects of composition, of audience adaptation, and of delivery. Frequently in these conferences he plays a record of a speaker—recorded from a broadcast—who exemplifies the principles he wishes the student to employ. This comparison has been very helpful to many students.

These conferences afford a friendly personal contact between instructor and student that is beneficial to both. The presence of the other students makes possible friendly reinforcement of the instructor's opinions, for practically always the student listening to his own record does not believe that it sounds like him. If, however, other

students say that it does, and if the instructor explains why the voice sounds unnatural to the maker of the record, conviction generally follows. This explanation is practically always necessary, if there are to be constructive results, otherwise the student tends to feel that the instrument has distorted his performance. With a great many students this hearing of their composition and delivery is one of the most useful single pedagogical devices of the entire course. The record affords them an opportunity to criticize themselves. They no longer need to take the word of the instructor for their shortcomings. In my personal experience, after the playing back of the records, there is, generally, a marked, immediate improvement in speaking.

As a check on the value of these recordings, a questionnaire was submitted to all public speaking instructors and to fifty-one students of advanced public speaking classes who have had a minimum of one previous public speaking course. Questions asked of the students and the answers are as follows:

1. Did you enjoy the experience of making records of your speeches?	47—Yes	4—No
2. Do you think it was of sufficient value in improving your speech composition to justify its expense?	35—Yes	16—No
3. Do you think it was of sufficient value in improving your speech delivery to justify its expense?	47—Yes	4—No
4. Do you look forward with interest and approval to making recordings in this course?	44—Yes	7—No
5. When the record was played over for you did you learn definitely from your instructor about the good and bad aspects of your speech?	45—Yes	6—No

The opinions of our seven teachers of public speaking parallel closely those of the students. All believe that the recording is of value in improving delivery, that the students are able to hear objectively monotony and other oral faults. One instructor believes that all students do not need the recordings and that records should be made only for students with weaknesses in delivery.

As to whether recording aids in improving composition of speeches, four instructors say, "Yes," three, "No." One instructor explains that the students are already more aware of their compositional faults than those of delivery.

In answer to the question of whether the University expense of approximately $.70 per public speaking student for these recordings is justified by the results, four instructors answered unqualifiedly,

"Yes," one emphasizing that on the basis of motivation value alone the money is well spent.[9] Three qualified their answer, one believing it justified only in the argumentation and debate, the advanced public speaking, the oral interpretation, and the speech improvement courses, and that it should be done more extensively in these. One limited its justification to fifty per cent of the students; that is, those who need delivery improvement.

As to whether students now do better speaking at the end of a year's instruction than they did prior to the recording, five are of the opinion that they can accredit some improvement to the use of the equipment, though none of us believe that there has been revolutionary improvement. The other two instructors believe that recording aided in delivery, but cannot answer affirmatively to generally better speaking. While in the past two years there seems to have been in student speaking some general improvement over that of the previous years, both in compositional clearness and in absence of delivery monotony, none of us can say definitely that recording has been responsible. Some of us believe that it has had an influence. It is, after all, but a small factor in the entire substance of instruction.

Several general comments are worth mentioning. Four instructors laid emphasis on recording as a valuable means of motivation in the course. These statements were purely voluntary, for no question concerning motivation was asked in the questionnaire. One instructor says, "The most conspicuous single reaction which public speaking students seem to have is the realization that their speaking is comparatively ordinary and in need of many improvements. It rather effectively destroys any unjustified illusion about the speaker's status." So true is this that one member of the staff observes, "Some students seem completely discouraged after hearing themselves." Personally, I have not observed that this discouragement ever destroys the morale of the class, or of the student; on the contrary, if the "play-back" conference is a success, it stirs the student to renewed effort.

Another teacher says, "The records reinforce and make clear specific class criticisms." Still another observes that the recording "is no substitute for efficient class instruction." In heartily endors-

[9] Since this paper was prepared, the cost has been reduced as a result of continued experiments.

ing that statement, I would add that it may be a useful supplement to an otherwise efficient course and that that, perhaps, is all which can be justly said for the recording of speeches.

Incidental Use in Public Speaking Courses. The comment of instructors on motivation value has been mentioned. Additional uses in public speaking classes are largely those of motivation. The novelty for students in the occasional use of the machine, if that is limited to the extent of not interfering with scheduled instruction, varies the procedure sufficiently to break up monotony. Several uses have enabled us to give an air of practical reality to instruction which otherwise to some students might seem only theoretical. For example, one or two of us, when assigning, at the beginning of the elementary course, a study of interest principles, have drawn attention to their use by Lowell Thomas and other news commentators. Later, when the student is asked to prepare a broadcast, from the laboratory to the classroom, of three or four items of news, he becomes temporarily a radio news commentator. While this may seem little more than a novel stunt, it certainly stimulates the greater number of students to apply instruction, and the practicality of the experience seems thereafter to exert wholesome influence upon the entire attitude of some students toward the course. Naturally, this radio feature is a mere incident in a general training; but, as a day's assignment at infrequent intervals, it serves to revive a possibly lagging interest.

When the instrument is used in student broadcasts, the portable loud speaker is carried to the classroom and connected with the machine by the wall outlet. Similarly connected, the play-back broadcasts student records to the assembled class. However, there seems to be little advantage in this. More useful is the playing, in demonstration of some principle, of recorded radio speeches of capable professional speakers. Such records can be made, with no other expense than the aluminum discs, from radio broadcasts. An excellent radio tuner, a unit of the equipment, makes possible as good recording from the air as from the classroom. Several of us have profitably used in this way a record we made of one of President Roosevelt's campaign speeches. Such use of the equipment in public speaking classes is, however, very infrequent. More frequently, it is used to demonstrate phonetic principles in phonetic classes, and the reading of actors in oral interpretation classes.

Advanced Public Speaking Courses. Of the total of 443 public-

speaking students for whom records were made in 1932-33, 151 were enrolled in advanced courses, Argument and Debate, and Persuasion. There is practically no difference in the recording-conference procedure for these students from that for the elementary, except that of emphasis based on course content. As a minor phase of the course in Persuasion, the equipment is employed for instruction in the broadcasting of speeches.

Oral Reading Courses. In these courses, in which fifty-five were registered in 1932-33, the student makes his records in the laboratory rather than in the classroom, using the floor stand microphone. He records on one side of a six or seven-and-a-half-inch record a fragment of a poem or a paragraph of prose, or parts of both. This he repeats in the second semester. He hears his record, in conference with the instructor, and is given the opportunity for self-criticism of expression, voice, diction, and general oral mannerisms.

One instructor, who is no more than lukewarm about the recording of speeches, is enthusiastic over the apparent results of permitting students to hear themselves read. His experience has been that this hearing stimulates students to practice exercises for the correction of monotony, bad inflection patterns, peculiar intonations, and weak or unpleasant voices. He says that many students, after hearing the record, improve immediately and continuously. He is in favor of more than two recordings a year for these classes. All instructors use exemplary Victor, and other, records, played to the class by means of the portable loud speaker.

Radio Speaking Course. In the Extension Division there is offered a course in radio speaking. This course is not given in the College for the reason that it is considered more technical than cultural. For all the broadcasting needs of the radio training of this course, our recording equipment has proved to be entirely adequate. The student goes into the sound-dampened laboratory—not essentially different from a radio station small studio—and with a technician and an announcer present, stands before the microphone and broadcasts to a classroom one or two doors away. Or the microphone can be taken to the classroom, plugged into a wall socket and the speech may be broadcast to the laboratory. In the first instance, the talk is received through the portable loud speaker, and in the second, through the speaker in the recording machine itself.

III. Costs

The machine was first used extensively in classes in the second semester of 1931-32. The students purchased from our book store their own records and needles at a cost of twenty-five to thirty cents. Since labor in recording was furnished by the Emergency Unemployment Relief Bureau, there was no need to charge students for this. There were, however, complaints from some students about the extra expense. While such complaint was limited, the Department believed that lack of complete co-operation of some students was due to the expense, small as it was. To gain fuller co-operation and to save students the added expense, the Department obtained the consent of the administration to include the recording item in the Department budget. This item for the next year, 1932-33, was $430.74 for records, needles, servicing, improvements in the machine, and new equipment. In addition, $150.00 was paid one technician.

This labor item does not represent by any means the cost of labor in making records. The Emergency Unemployment Relief Bureau of New York City has for the past two years placed unemployed technical men in the laboratory, with no expense to the University. There was at least one such technician employed from nine to five, five days a week. Last year the schedule of recording was so heavy that this technician was busy practically all the time with recording and playing back records. The item of $150.00 was paid the technician who recorded night classes. At the rate paid to student employees at this University, the labor cost for last year's recording would have been at the very least an additional $300.00. As a matter of fact, after experiment had demonstrated the desirability of recording classroom speeches, our program of recording was extended to provide work for engineers on emergency relief rolls. It is very doubtful if the Department could continue its extensive recording program without cost to the student if it had to budget this additional item. We could, perhaps, rush students more and thereby double the number of recordings an hour. We could ask members of the staff to contribute more time; but not without loss in other ways. Two other colleges in the University avoid this difficulty by charging students a dollar a year for recordings.

Cost of Up-Keep. A statement of costs of records and needles for one year (1932-33) follows. A two-year total is not given for the reason that in only one complete year were records furnished to students.

Purchased	*Cost*		*Students Recorded*	*Used Experimentally or Spoiled*	*Surplus*	*True Cost*
600 10″ Records	@ .25	$150.00	507	33	60	$135.00
50 12″ Records[10]	@ .37½	18.75	8	12	30	7.50
500 6″ Records	@ .10	50.00	342	83	75	42.50
Total						$185.00
300 Fibre bakelited process needles	@ .02					6.00

These figures clearly indicate that the cost for records is lowest for the phonetics and oral reading groups, which use the six-inch records, and highest for the public speaking group, which uses the ten-inch. They show also that a department cannot plan to use merely as many records as there are students. Spoiling some records is unavoidable. Many records are needed for experiments of various kinds, testing the equipment, testing a voice prior to an important recording, and experimenting to get better results. Under "Used Experimentally" are included records of air programs, etc., made for demonstration purposes.

Cost of improvements in the recording machine over the two-year period, October 1931–October 1933, (Diagram I)	$88.00[11]
Costs of servicing, repair, and replacement, 1931–1933:	
Recording Machine	13.50
Portable loud speaker	16.75[12]
Tubes	31.49[13]
2 Needles (diamond point)	10.00
Microphone—to replace one stolen	12.00[14]
Repairs to needle sharpener	1.00
Total	$84.74
Costs of Labor (1932–33)	$150.00

[10] Records four minutes and twenty-five seconds on each side.

[11] A new machine purchased today would have the improvements at the original cost.

[12] This item of expense was not justified and was due entirely to the carelessness of technicians in plugging the voice coil leads from the speaker into the electric light socket, thus burning out the coil windings.

[13] The greater number of tubes are still in our stock—the expense for tube replacement is very small.

[14] Not purchased at the original price but obtained at a bargain.

It will be noted from these figures that the cost of servicing the recording machine has been slight, though servicing has been frequent. The cost of $88.00 for improvements in increasing the frequency range has been money well spent. It is to be expected that in the future new improvements, increasing the general effectiveness of recording, can be made every few years.

IV. Trials and Disadvantages of Recording

One thing that should be understood by any department which contemplates the purchase of recording equipment and an extensive recording program, particularly if the department is large, is that administrative problems are decidedly increased by such general recording. The simplest division of our entire recording schedule is hat of the ten speech-correction sections and the three sections of oral reading, with a total of 330 students. These students are scheduled to come to the laboratory at definite times to make their records, and are then re-scheduled for a later "play-back" conference. A schedule of six students per hour for both the recording and the play-back requires a minimum of 110 hours. This 110 hours is repeated the second semester.

The more complex, difficult schedule is that of the public speaking classes, which of all grades, elementary, argumentation and debate, and advanced courses, number 20 sections with 443 students. For the reason that, at some popular hours, as many as four public speaking classes are scheduled, not all of our classes can meet in the two classrooms adjoining the laboratory. For some of the sections, then, the recording schedule must include shifting of classes from one room to another, with each class permitted a scheduled period of weeks in a room adjoining the laboratory, a shifting that causes some irritation to students and instructors alike. With 443 students, and an average of five student recordings an hour, a minimum of 89 class hours is required, plus the scheduling of at least another 89 hours for conference. This minimum total of 178 hours is again repeated the second semester.

There is in all, it will be seen, for all types of courses, a minimum schedule of 560[15] hours a year for recording and play-back confer-

[15] This total is for the regular fall and spring term and does not include recordings for seventy-six students in five sections during the summer term.

ence. It will be seen that, for eight instructors, this is a considerable load. However, it must be remembered that, since the actual recordings have not been made by the instructor but by a technician, only half of this 560 hours, or 280 hours, is an extra outlay of time for the teaching staff. And since periodic conferences with all students are a part of our regular instruction plan, the time employed in "play-back" conferences is not entirely additional. It is well to note that, where the recording is of classroom speeches, no time is taken from the class hour other than that of adjusting the microphone. Nevertheless, this whole process of scheduling, recording, and conferences requires much time both of the administrative chairman and the teaching staff.

Additionally, much administrative time is consumed in the small matters of recording. An instrument built for high and low frequency ranges is delicately adjusted and is, consequently, frequently getting out of adjustment. Since the entire effect of recording is limited by the weakest link in the unit, the changed characteristics of a tube, of the cutting-head, of the cutting needle, or of any other element destroys the effect of the whole. When something goes wrong the schedule is broken up and recording delayed until the equipment is serviced, thus requiring re-scheduling. Hardly two months pass without some such change. This results in telephone calls, purchase requisitions, letters, time consumed in check-up, and general annoyance. Sometimes we may have made records for a half day or a day before a distortion is discovered, and the records for that period will have been to some extent spoiled. This may require re-recording, otherwise the student will revolt or will be over-discouraged when he hears the play-back.[16]

Commenting on this heavy administrative and instructional outlay, Professor William Farma pointedly says, "I think that the use of laboratory equipment in speech training, including a recording instrument, can reach a point of diminishing returns. I mean by that, where extensive use of a machine involves complex administration problems, the taking up of much classroom time in handling the machine . . . . there is a danger of diminishing returns when a certain point is reached." We have tried to avoid this danger. It may seem from what is here outlined that we have permitted the

[16] Up to the time this was written many individuals handled the equipment. Since then, many of these disadvantages have been eliminated by the continued services of a competent technician.

machine to over-balance other instruction. I do not believe that is true. We are giving the same type and quality of instruction that we gave before we started recording. The only difference is that the machine has been added, at the expense of the budget and instructors' time. It would, however, be a simple matter to extend the use and reach the point of diminishing returns.

V. Summary of General Advantages

In spite of the disadvantages noted above, our Department will not give up the use of this machine as long as we can finance its expense. Backed by our two years of experience, we should, if we had at present no machine and were able to purchase one, make the purchase; for I am convinced that, with all the additional administrative responsibility and extra consumption of instructors' time, the recordings are instructionally worth the time. Their greatest worth is in connection with speech-correction, speech-improvement courses. I am satisfied that, in all courses, students gain much from being able to hear themselves as if listening to a third person. In connection with public speaking courses, we could more readily get along without the equipment, though here again I feel it has a use, in motivating interest and endeavor, in improving delivery, and in aiding many students to hear and to improve their speech composition.

ADDENDA

Since the preparation of this paper a year ago, additional experience, consistent experiment, and a thorough survey of recording materials have resulted in general improvements and decreased costs, some of which should be here noted.

1. Change from rotary converter source of power-supply to commercial alternating current to eliminate variations in turntable speed, not only resulting in better recording, but also reducing power consumption costs perhaps seventy-five percent.

2. A distinct improvement in reducing needle scratch, affording more faithful reproduction, has resulted from the use of aluminum records with an increase of thickness from .015″ on 6 and 8-inch discs and .027″ on 10-inch discs, to .032″ for all sizes. The unlubricated aluminum discs, in all sizes, marketed by Strahs Aluminum Co., 60 Walker Street, New York City, are of this latter thickness, of excellent quality, and are sold in one hundred lots at a price which reduces record costs about forty-five percent. With the assistance of our College Department of Chemistry, a satisfactory lubricant, easily applied, has been developed for application on the blank discs.

3. The installation at a relatively low cost of an electric motor and a magnetic pick-up in the Orthophonic Victrola has made possible duplicate

transcriptions. It is operated by inserting the leads from the pick-up into the phono-jack located on the control panel of the Recordovox.

4. The 1/32 H.P. induction motor used to operate the turntable was found to lack sufficient power to operate without variability under the pressure of the cutting-head. For it was substituted a 1/10 H.P. motor.

5. Heretofore a disadvantage in recording radio broadcasts, or speeches from a distant classroom, has been that of not being able to listen to the speech while the record was being made, since the electrical energy required to operate the loud-speaker detracted from the efficiency of the cutting unit, if both were in use at the same time. The installation of headphones has made it possible to listen in during the recording with no reduction of recording efficiency.

The recording equipment has been so thoroughly adjusted that it has had little or no servicing for some eight months. Consequently, little of the difficulty of spoiled and unsatisfactory records reported in this paper has been experienced and recordings have been almost one hundred percent satisfactory.

RESONANCE*

F. LINCOLN D. HOLMES

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PERHAPS you will remember the times at Grandma's or Aunt Mary's when you placed an iridescent seashell close to your ear and heard therein the roar of the ocean. Or you may have tried to "blow" the conch shell the way Grandma or Aunt Mary did to announce that dinner was served. If you didn't play with the seashells, you may have removed the forbidden cover and shouted into the cistern or into the half-empty rain barrel which stood near the corner of the house and heard your small voice multiplied a dozen or more times. Just how we first encountered resonance in operation doesn't really matter.

Whenever the production of vocal sound is discussed, resonance is certain to be mentioned. Innumerable writers have discussed its nature and its manner of functioning. Instead of reciting what they have said, I am going to ask the reader to review with me the rôle of resonance in the process of phonation.

Perhaps we can agree that the phenomenon of resonance occurs whenever sound waves produced by a vibrating body are amplified by the reflection of sound waves, produced a moment before by the

* This paper was presented in part at the 1933 Convention of The National Association of Teachers of Speech in New York City.

same vibrating body, from a nearby surface or partially enclosed body of air. When we hear a "wind" musical instrument, the presence of resonance is obvious. Also, we know that it must be active in the production of vocal sound. We probably shall agree that the phenomenon occurs whenever a subsequent sound wave is reinforced, or modified, by a sound wave produced previously by the same source. As a means of approaching this discussion of phonation and resonance, let us consider some of the characteristics of vocal sound.

The time-honored list of physical aspects—quality, force, pitch, and time—is not out of place, since all phonation possesses these characteristics. However, another classification which involves a cross-section of these four phases of vocal sound may clarify the discussion. Vocal sound can be analyzed into three aspects: The most apparent of these is the phonetic sounds of spoken language which we hear combined into words, phrases, and sentences. We must remember that every vowel and vowel-like phonetic sound is composed of a fundamental and those higher frequencies characteristic of the sound itself. Indeed, it is this complexity of frequencies or pattern of frequencies that enables us to distinguish one speech sound from another. Secondly, speech must provide some non-phonetic symbols or signs, such as inflection, pause, and grouping, which serve as audible punctuation. Lastly, we hear the universal attribute of vocal sound—those emotional symbols known as "the qualities of the voice." This aspect must not be confused with the vowel or vowel-like quality mentioned above, for, although it accompanies the production of such sounds, it is a separate entity which can be varied to express the whole gamut of emotion, while the phonetic sounds remain very definitely the same intellectual symbols carrying modified emotional connotation. When further analysis is applied to the total product, we can observe many manifestations of the four physical aspects of vocal sound. Changes in pitch provide the melody of spoken language and also serve as punctuation. Time, or rate,—fast, slow, and intermediate,—may play two rôles, that of emotional symbols and that of punctuation. The complete pattern of vocal sound, the three aspects mentioned, is representative of the person producing it, and probably is responsible for our being able to recognize differences in individual vocal quality. The relation of resonance to quality and force will be discussed later.

The apparatus with which we produce this variety of charac-

teristics present in spoken language is familiar to every reader; we use the respiratory tract with its emergency hatchway—the mouth. The energy responsible for vocal sound is formed from the breath stream, under pressure during exhalation, by the operation of a valve (formed by the vocal folds) located in the larynx. This valve has vital functions to perform, as has all the rest of the apparatus used in the production of vocal sound. It keeps foreign bodies out of the lower respiratory tract, regulates the flow of air to and from the lungs, and, furthermore, during physical struggle, by its closing, prevents the escape of air imprisoned in the lungs and thus facilitates muscular action on the part of the arms. However, when the pressure on this imprisoned air becomes great enough, the valve is forced open and a puff (usually a series of puffs) of this imprisoned air is released into the pharynx. This release of the puff of air relieves momentarily the pressure on the imprisoned air and the valve closes, only to be forced open again if the pressure continues, whereupon another puff of air escapes. The valve closes again, and, if the resistance to, and the pressure on, the imprisoned air continues, the valve is pushed open again and again. Because of the elastic nature of the valve, the rhythm of opening and closing is fairly regular. The rate at which the puffs of air are released into the pharynx is responsible for the pitch of the voice. The term "larynx tone" is commonly applied to this part of the total vocal product.

This valve, just described as the pressure-releasing mechanism used in phonation, divides the respiratory tract into two sections: One, the infra-glottal portion, composed of the trachea, the bronchi, bronchioles, and the air sacs, in which part of the breath stream is imprisoned during phonation; and the other, the supra-glottal portion, composed of those cavities above the valve (the glottis), the pharynx, mouth, and nasal passages. Regardless of the manner in which this valve mechanism functions in the production of what we call vocal sound, the air in the cavities both above and below the valve is set into vibration by the process. Thus, we have two bodies of partially enclosed air capable of acting as resonators. As soon as the equilibrium of each body of air is disturbed, the air vibrates at a frequency (determined by the length, cross-section, the number and size of the openings outward, and the material of which the walls of the cavity are composed) peculiar to the enclosed body of air. In order to reach the ears of the hearer, the disturbances set up in the air in the supra-glottal cavities must pass through it in the usual

manner in which sound waves travel. If the mouth and pharynx are set for a certain speech sound, such as [i] in *see*, when successive disturbances set up as puffs of air are released from the breath stream by the valve in the larynx, that sound will be produced.[1] These supra-glottal cavities acting as "resonant tracts"[2] are responsible either for initiating or amplifying those frequencies characteristic of the various vowel and vowel-like speech sounds.

The quality or timbre of the sound produced by brasses and the reed woodwinds depends upon "resonant tract" resonance of the same kind as that which functions in the production of vowel and vowel-like speech sounds. By actively exhaling air, as we do in whispering, we can sufficiently disturb, set into oscillation, the air in the supra-glottal cavities to produce whispered speech sounds, which proves that the particular frequencies responsible for them are produced. The resonance of these cavities is varied by the use of the lips, jaw, tongue, and soft palate, to modify the coupling of the pharynx with the mouth and with the nasal passages. The tissues which form the walls of the supra-glottal cavities undoubtedly play an important part in the resonance of those cavities, but I shall not have time to discuss this factor here.

That the supra-glottal cavities, acting as "resonant tracts," are responsible for the qualities that distinguish the various vowel sounds one from another, is scarcely disputable. However, the question arises: Is the loudness of vocal sounds caused by the resonance provided by the supra-glottal cavities? Many writers say that the disturbance—the sound—set up by the vocal folds is very feeble and that the loudness of vocal sound depends upon the resonance provided by the various resonators—the supra-glottal cavities, including the accessory sinuses. Is the loudness of vocal sound dependent upon an amplification of the larynx tone?

The answer depends upon the nature of the larynx tone. If it is composed, as many investigators would have us believe, of a fundamental and its overtones, one can say that the loudness of vocal sound results from the amplification of certain of the partials of which

[1] Elmer L. Kenyon, M.D., "Action and Control of the Peripheral Organs of Speech," *The Journal of the American Medical Association*, (Nov. 3, 1928), Vol. 91, 1341-1346. This article suggests the "mouth mold" concept.

[2] A passage way or tract through which sound waves must pass in order to reach the ears of the hearers has been termed a "resonant tube" or "tract." This term applies only when the sound waves have no other way of reaching the outer air.

the larynx tone is composed. However, what is discovered when vowel sounds are analyzed? When the individual waves of good quality vowel sounds produced by male voices at about their normal pitch (as recorded by a carefully calibrated microphone-amplifier-oscillograph system) are subjected to harmonic analysis, very little of the total energy in the complex wave is found in the fundamental or first partial. If the energy of the vowel sound does not exist in the fundamental, wherein does it rest? (We must remember that every vowel sound is complex, i.e., it is composed of several frequencies.) Ordinarily, the major part of the energy in the vowel sound lies in the frequencies characteristic of the sound involved. This is not inconsistent with what the ear distinguishes about vowel sounds. Apparently, speech sounds are most intelligible when the major part of the energy in the vocal sound exists in those frequencies characteristic to the speech sound. Data assembled in the Experimental Phonetics Laboratory in the Department of Psychology at Iowa State University through the harmonic analysis of the sound waves of vowel sounds invariably indicate that very little of the total energy exists in the fundamental of the tonal complex. However, this holds only for those vocal sounds produced at or near the normal pitch of the individual.

If these experimental findings are true for efficiently produced vowel sounds as a general class, we can infer that the supra-glottal cavities do not amplify the fundamental of the larynx tone. Their function as a "resonant tract," then, is to accentuate those frequencies characteristic of the vowel or vowel-like sound being produced; for, each vowel and vowel-like speech sound exists only if and when its characteristic frequencies are produced. Furthermore, because of their function of producing or amplifying these characteristic frequencies, these supra-glottal cavities, acting as "resonant tracts," are responsible for the intelligibility of the vowel and vowel-like speech sounds. Apparently, the ease with which individual speech sounds can be distinguished, i.e., their intelligibility, varies, unless other factors intervene, directly with the proportion of the total amount of energy existing in the frequencies characteristic to the various speech sounds. On the other hand, the relative loudness of vocal sounds varies in proportion to the degree to which the air in the supra-glottal cavities is set into vibration. If the disturbance provided by the larynx tone (the puffs of air released from the breath stream) is feeble, the vocal sound will be feeble. When the dis-

turbance is more marked, and there are no inhibiting factors, the vocal sound will be louder.

Perhaps practically every reader has heard, as I have, some worker in the field of voice improvement observe that a weak voice, one that lacks carrying power, results from a failure to use all of the resonators. If I have made my argument clear, the reader will realize that whenever a person is producing all of the English Speech Sounds in a conventional manner, he is using all of the resonators—all of the supra-glottal cavities. If the nasal passages are blocked, as in the case of a severe head cold, voiced plosives will be substituted for the conventional nasal continuants. If the nasal passages are connected with the pharynx by the lowering of the velum, and other conditions are favorable, positive nasality such as one may hear in parts of New England, as well as elsewhere in our country, occurs. The supra-glottal cavities are utilized as "resonant tracts" in the production of vowel and vowel-like sounds. The weak voice, only in so far as its weakness is caused by a failure to accentuate those frequencies characteristic of the various vowel and vowel-like sounds, cannot be attributed to a failure to use all of the resonators.

What then is responsible for the weak voice, the one which cannot be heard intelligibly across three feet of space? The relative loudness of the sound varies directly with the amount of energy introduced into the supra-glottal cavities by the larynx tone. When the disturbance is provided by driving the air out through the cavities, as in the whisper, the total volume of sound is small. When the energy released into the cavities is greater, the total volume is greater. The weak voice does not result from a failure to use all of the resonators, but from a failure to set the air in the cavities into sufficiently active vibration. A resonator or "resonant tract" has no capacity to create energy. It merely uses energy existing in one sound wave to amplify or otherwise modify the energy existing in a subsequent sound wave.

There is some evidence to substantiate the belief that the resonance provided by a "resonant tract" can facilitate the release of energy by the sound-producing mechanism. In the case of the "lip blown" brasses and the "reed blown" woodwinds, the "resonant tract" facilitates the release of energy into the "resonant tract" of the instrument by the lips or by the reed. In these musical instruments, the natural frequency of the "resonant tract," or some exact multiple of this frequency, determines the rate at which the pulsations of

energy (the puffs of air) will be released by the lips or reed into the instrument. Although this facilitation may occur to a limited degree in phonation, the effect of the supra-glottal cavities cannot be so direct because the natural frequency of the resonator is rarely that at which the larynx tone is produced (except for a very high pitched voice, in which case the larynx tone frequency may coincide with the low frequency characteristics of such sounds as [m], [n], [ŋ], and [i]). That the speech sound being produced has some effect on the pitch of the larynx tone has been revealed in some unpublished research directed by Dr. Joseph Tiffin at the University of Iowa.

To summarize briefly: The supra-glottal cavities contribute to vowel and vowel-like speech sounds the resonance responsible for the characteristic frequencies of those sounds. The total loudness of the vocal sound depends upon the degree of disturbance imparted to the air in the supra-glottal cavities by the larynx tone.

Since I contend that effective vocal sound depends upon the larynx tone, naturally the next question is: What factors determine an efficient larynx tone? I believe that there are three of great importance: The first is the efficient functioning of the larynx; the second is the use of a normal key; and the third is active control of the pressure on the breath stream.

Let us consider the first of these problems, the efficient functioning of the larynx. As I have stated, my observations induce me to look upon the larynx, really the valve located therein, as a pressure-releasing mechanism. The release of pressure in the form of puffs of air from the air imprisoned below the valve (the glottis) provides the energy which sets the air in the supra-glottal cavities, and the infra-glottal cavities as well, into vibration, thereby producing speech sounds. As I see it, two factors determine the quantity of energy in the puffs of air released into the pharynx by this valve in the larynx: the quantity of air in each puff; and the degree of pressure maintained on the imprisoned breath stream, from which each puff is released. When the muscles and tissues which form the walls of the valve and those responsible for its operation provide a most favorable amount of resistance to the breath stream, the quantity of air in each of the puffs will be relatively large, depending upon the rate of release; and the amount of pressure which may be applied to the breath stream may be slight. When the tonicity of the muscles forming the valve increases, the quantity of air in the puffs becomes smaller because the time the valve remains open is shorter. The

degree of pressure existing in the puffs of air can be greater, although the actual quantity of air released is less, because the resistance offered the breath stream is greater.

Apparently, the maximum amount of energy can be released into the supra-glottal cavities when the resistance offered by the valve to the breath stream is most favorable. When the valve is too tense, too little energy is released into the pharynx compared to the amount of energy expended in the resistance offered by the valve to, and the pressure on, the breath stream. When the valve is not tense enough, insufficient resistance is offered to the breath stream to provide enough energy for the voice. A prime requisite to the efficient production of vocal sound is an optimum amount of resistance offered by the valve in the larynx to the breath stream. Whenever too much resistance is being offered by the valve in the larynx, the voice is forced or weak. Habits of efficient laryngeal tension require considerable training, because the use of this valve during physical effort has set up conflicting habits.

The second factor in strength of larynx tone, the use of one's normal key, or pitch level, involves the use of infra-glottal resonance provided by the air imprisoned during phonation in the lower respiratory tract, especially in the trachea and bronchi. The use of this normal key results in the phenomenon known as "frontal placement." In an earlier article on "The Problem of Voice Placement,"[3] I developed the thesis that this phenomenon of placement is produced by the infra-glottal resonance. If no other factors intervene, the use of one's most favorable key results in a normal quality voice, possibly because it utilizes this resonance maximally. As mentioned before, intelligibility in speech sounds is apparently best provided by this quality of voice.

Now let us consider briefly the third factor in vocal efficiency—the active control of the pressure on the breath stream. Sufficient has been written about the types of breathing habits which permit the most precise control of the pressure applied to the breath stream. I, too, recommend training in the active control of the breath. However, I must emphasize that good habits of breath control cannot compensate for unfavorable tension in the larynx nor for the use of a non-normal key or pitch level. Breathing habits must supply, without undue effort, sufficient air for vital as well as phonation purposes. It seems to me that the best way to provide for both vital and

[3] Quarterly Journal of Speech, Vol. XVII, (April, 1931).

for voice production needs is to replenish the supply at every opportunity consistent with effective phrasing or breath grouping.

Other factors affecting resonance, such as co-ordination of the cavities, tonicity of the muscles that form the walls, proper use of lip-rounding, inflamed condition of the mucous membrane lining the respiratory tract, etc., cannot be discussed in this paper.

WHAT GOOD IN COLLEGE DRAMATICS?

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AT THE first meeting of persons interested in Dramatics, college, community, and professional, invited by Carnegie Institute, there was throughout the discussion one noticeable assumption: If colleges were going to spend time and money dabbling in dramatic instruction, they must justify it by showing that they were somehow helping the professional theater.

The next meeting, at Yale, naturally made college dramatics more prominent, but still for many the central thought was Professor Baker's superb method of teaching aspirants how to write plays—for the professional theater. The third meeting, at the University of North Carolina, emphasized Professor Koch's skill in finding fresh and fragrant new material for the drama.

In the National Association, since we are all teachers, although many of us are in both groups, the emphasis has been somewhat different, though rather uncertain. It is natural for the large universities to train students for the theater just as they train them professionally for medicine or law. A number of institutions are equipped to do this in a satisfactory way.

But what shall we say of dramatic instruction in the college of liberal arts? Here can be no professional training. Why should the college go to the expense of erecting a building for a Dramatics laboratory, and paying the salary of a teacher? And why should we permit and encourage students to spend their time on Dramatics if we are not preparing them for the professional theater? Are there provable educational values in a college course in dramatics? Or is it merely a sop thrown to Cerberus, like a good deal of the athletic rah-rahing?

The commercial theater differs from the laboratory theater on

the College Campus as widely as a wholesale drug factory differs from a chemistry class room. In the drug factory perhaps a thousand persons are employed. Not one in ten of them knows any of the processes in the factory, except the thing that he himself is doing day after day, year after year. He knows nothing about the complete process. He has no directing intelligence. He is merely a part of a machine. In a commercial theater, each person, presumably, knows his own job. He does not know nor care about the others. The sole effort of the manager is to produce a play, beautiful, or interesting, or well enough acted or staged to attract large audiences. As long as he produces that result, he has no other interest in the actors, the scene shifters, the costumers, the scene designers, and the rest. He is not concerned with their personal improvement. He must center his mind on the play.

On a college campus the situation is reversed. The Department of Dramatics, like the Departments of History, Chemistry, Latin and all others, must answer the question, "What good will it do the student?" That question is a fair challenge, and I will make some attempt at an answer.

a. It is obvious that it prepares the student to enjoy more fully the plays thereafter seen in the theater.

b. It will undoubtedly develop some skill and aptitude that may later prove very useful in community dramatics, or even lead to professional work.

c. It certainly does give sufficient familiarity with the various aspects of amateur play production to enable the student to get a job, and to hold it, as dramatic director in high school.

But I wish to set these three considerations entirely aside. If a student hereafter never goes to a theater; if he never takes any part in community dramatics; if he never has occasion to teach dramatics, I would still maintain that a course in dramatics will do more to develop the observing powers of the student, to improve his thinking, to beget confidence in backward personalities, to awaken the creative instincts, and to open unfailing springs of enjoyment than any other course in the college curriculum.

Let me repeat this challenge—What are the attainments that a student and his family hope for from the college course?

a. The ability to observe and the invincible habit of observing.
b. The ability and the compulsion to think things through.
c. The habit of getting things done.
d. A growing appreciation of beauty.
e. The poise of culture.

What can dramatic instruction do to meet these prime educational demands? Students that have spent a year in chemistry, or geology, or botany have supposedly learned to observe. Have they? Their observing area frequently is rather narrow. Too often somebody else has put things on a glass slide, and even pushed it under the microscope for them. Ask them to walk across the room like a rather feeble man or woman of seventy. They get a stick and wobble as if an old person necessarily had corns, rheumatism, lumbago and palsy combined. They walk as they have never seen anybody walk. In dramatics their observings are not confined to algae, or bacilli, or the cross section of an earthworm. They are much broader, being the actions, motives, aspirations, impulses, and victories of human beings. Their observings are criticized. Guesswork will not pass. They must learn to see. They must watch enough elderly people to determine just what the difference is between the gait of a vigorous person and the less confident stepping of age.

They must observe people of different temperaments, under similar circumstances; how this one and that one recoils at bad news; how differently yet similarly this and that one starts eagerly forward in gladness. The study of human nature in action involves the whole study of psychology, and a student's reproducing of these joys, sorrows, hopes, and determinations awakes in him the artistic spirit, if anything can.

Nothing develops the power to observe better than designing. What sort of tables, drinking cups, fireplaces, helmets, armor, weapons, and garments did Macbeth have? "Oh, he—uh—well, I know but—." Just take a sheet of graph paper and make a scale drawing of one article, and then make the article from that drawing. Then the search begins.—Look in the history library, the art department, the geography alcove, the department of anthropology. Can we find any books and pictures on Saxon or Celtic, or Danish, or Norse life? If we are fortunate enough to find a few pictures of interiors, of garments and weapons, we immediately discover that we cannot make anything so complicated. What parts can we use? What can we select for our production to give the characteristic feature that we need? To the average student, this is overwhelming. But with insistent urging, he goes at it. And while the objective results of his designing are not always usable without the modifying pencil of the instructor, there is gradually built up in his mind a worthy standard and the compulsion to reach it.

Every aspect of dramatics emphasizes the need of careful observation. The student's youthful slapdash will not do. When he enters he thinks he knows what a mustache looks like, and a Vandyke beard, and side-whiskers. Why, he could put side-whiskers on with his eyes shut. And when he puts them on, the result looks as if he had done it with his eyes shut.

After awhile he discovers that heretofore he has never noticed what the tones of the voice imply, or the difference between the melodies of conversation and the wooden intervals of a reader. It flashes upon him like a discovery when you have compelled him to notice what happens to the beautiful costumes when the gelatines are changed; and how blurred the picture is when the actors shuffle aimlessly around and fidget with their hands. Every aspect of dramatic work cultivates accurate observation, not of special and peculiar things put on a slide under a microscope, but what is far more important and far more difficult, constant and accurate observation of the common things that most people assume they know well enough.

Back of his new habit of observing is a new quality of mind. He is learning that every difference has meaning. He notices these differences now because he realizes that they are significant. This new quality in his mind is the search for significance. We have opened the door to philosophy.

But we may venture deeper. Dramatics is a notable help in learning to think, in gathering all the available and pertinent factors, and then drawing the right inference, in assembling all the considerations in their proper relations.

Every reform in education has been an effort to stop the teacher from pouring information into the pupil's mind, and instead to allow the pupil, to compel him, to exercise his own powers. Whatever learned terms are used, the progress of education is at every step the re-invention of a self-starter.

In one of our remote mountain coves a young giant planted his feet, doubled his fists, and defiantly announced his declaration of independence:

"Thar hain't no teacher cain't larn me nawthin'." In a less obstreperous manner, perhaps most students are saying the same.

If a student has any initiative, dramatics will bring it out. Of course, we cannot make anybody think. But we can put tremendous temptation before him. Compare the mental operations of a student in the average literature class with his work when he is cast for a

part in the same play. In literature class he is told about the sources from which Shakespeare is supposed to have drawn his material. Possibly he reads some of them. He learns the dates of the quartos and the folios, and perhaps he looks up the meaning of some words. He discusses the characters and learns some fine passages. Possibly he analyzes the structure of the play. In dramatics he must, of course, know the exact meaning of the words. He must study the characters as a whole, but in addition he must perceive their psychological reactions at every step of the play; what motives, impulses, appetites impel them. He must understand the plan or pattern of the play, the different strands that intertwine, the various situations that contribute to its culmination and how these situations affect this character and that. What is there in these personages to interest us? What motives do their actions reveal? Is there individual consistency? And are all these different personages harmonized into a total unity? Through all our sympathy, hope, suspense do we have a sense of law and the inevitable ongoing of Destiny? Then after he knows the play in this more intimate and thorough fashion, consider the effort, the creative skill needed to give it to the audience. He must build an adequate voice, accurate in inflection, vibrant with feeling; supported by bearing and action unhampered by awkwardness; voice and body alert with suggestions that stimulate the audience and supply them the food for their thinking and feeling.

This is no small demand. The actor's imagination, by his prolonged study, has been kindled to reconstruct the situation until it throbs with life, until it is so charged with reality that it becomes vivid to him. How can he convey it with equal vividness to the audience? How can he show them all that he has discovered in it? For the first time, perhaps, he realizes that words alone are inadequate. "The audience would need repeated tellings; what can a player do? He cannot stop and give explanatory footnotes!" Yes, that is just what he must do, but the footnotes are not in words. The actor must somehow convey his thought, and especially his feelings, by movements about the stage, by meaningful bearing, and significant gesture; by the expression of the face as well as by words and the tones of the voice. "By movements! What movements? What action of body, hand, and face can we use to show the full meaning and feeling of the situation?" Students that have never had to think before, gasp as if they were turned adrift on the sea in an open boat. "How can I make the audience feel this by my voice?" Yes,

how? Until now he has used his raucous voice only to ask for food, or warn off interference. He has never dreamed that the voice by its very tones could express all the feelings of the human heart. He may be on the verge of one of the major discoveries of his life—the possibilities of complete revelation of one's mind by voice and action, the first step towards becoming an artist.

Who can overestimate the influence of Dramatics in developing the ability to think, the habit of thinking things through, the compulsion to master one's problems instead of jauntily nosing them aside and leaving them like rudder-waves opalescent in his wake?

The third attainment that parents hope from college education is executive ability, the habit of getting things done. Some emphasize tact in managing people. Some speak of persevering energy that hammers obstacles until they give way. Some emphasize courage to face venerated opposition, the will to bring things about when they are impossible. I suppose this masterful dependability is the rarest quality in students—and in others. In dramatics there are constantly new paths opening which arouse courage, which invite independence, which demand the surmounting of unforseen obstacles, the managing of impatient players, the transforming of dullness into charm. I have seen hesitant students gradually realize in the dramatics workshop that nothing is impossible; that in some sort of fashion, they can accomplish anything. Tempered with a sprinkling of modesty, this refusal to be conquered, this sense of invincibility is perhaps the greatest gift that the college years can bestow.

May I add a footnote—the professorial counterpart of the Victorian gentlewoman's postscript? Practice in directing or co-directing develops responsibility, appreciation, leadership, and intellectual understanding of the play. Certainly! But I found another, and unexpected, contribution. Directing trains the director in acting, in freedom of expression, not only in accuracy of interpretation, but in vividness of feeling. I had a student with a keen mind; a familiarity with, and alert appreciation of, Shakespeare; clear utterance and a good sense of rhythm in reading verse. But she was reticent, self-consciously cool, and therefore cramped and hindered in expressing emotion. I considered myself fortunate in securing her for assistant director and prompter for *The Taming of the Shrew*. Her efforts to induce the players to express what she saw ought to be expressed, somehow broke over her own inhibitions, and next year she won the lead in *Twelfth Night*.

The fourth attainment that some parents hope for is a growing response to beauty. I have often felt that college faculties do not help students very much to appreciate beauty. We get so snobbish about "intellectual values." We worship knowledge with our profound minds, and neglect Beauty as if She were not a dignified member of the scholastic family but—well, a maiden with superficial attractions, no doubt, but no better than She should be. There may be an obscure course on esthetics tucked away in the philosophy curriculum, but where on the campus can the ordinary student learn anything about beauty, art, designing, good taste unless he gets it in dramatics? He is set to design a dagger for Macbeth; it must look kingly: a setting for *Twelfth Night;* it must have distinction: an Elizabethan fireplace, a Moorish doorway, the pillars and arches of a Norman castle. He consults books he never looked at before. New ideas crowd upon him—architectural significance, the beauty of carving, proportions, curves, ornamentation, historic accuracy. After studying this new wealth of pictures, he finds that he cannot copy them; he never could build anything so complicated as these. Now comes the creative task. He must simplify; he must design something to look like these and yet omit most of the details. To preserve proportions and keep them true to type while making them simple enough to build in the workshop—that demands a practical application of the basic principles of beauty. The instructor will probably explain so many principles and furnish so many suggestions of their application that he may become discouraged and think he is doing it all and the student doing nothing. It is the same in everything. How many original problems does the student invent in geometry? We need not be discouraged. The student has been ushered into a new world. He is absorbing this fresh food you give him, and if he never designs or constructs anything wholly original, you have none the less opened for him the gates of new life.

The final attainment that parents fondly expect from college experience is poise; that ripening of a raw boy into a considerate man; that maturing of judgment and steadiness of action which comes from the habitual control of one's faculties, and the purposeful directing them towards some worthy aim. Poise is culture, a term often misused. The essence of culture, I take it, is simply the enriching one's personality by a constantly widening range of enjoyment. The uncultured person likes this and this and this, and dislikes that and that and that. He has comparatively few likes, usually more dislikes, since he probably dislikes everything new and untried.

The process of education or culture is merely learning to like more things and more experiences, disliking fewer. There is little value in any college class, no matter how much information it imparts, unless it adds some new enjoyment to the student. The more different aspects of nature he explores, the more he dives into philosophy, tunnels into history, or soars into poetry, provided, of course, he enjoys it, the more cultured he is. The more he responds to sculpture and painting, architecture and music, the finer his culture. But if he study Greek, Latin, poetry and painting without enjoying them, he will not be cultured. It is not the subject, it is how much the subject adds to his capacity for enjoyment.

What class can a student enter that will stretch his mind more insistently than dramatics? And what study is more like a picnic? If a man does not like chemistry, what a wretched bore a whole year of it can be. But in dramatics, if he does not enjoy working at the dye-pot, there are a hundred other things that he will enjoy. Dramatics has one feature in common with playing truant on a fine summer day—you are always climbing a fence into some other fascinating domain. Everything we do in dramatics is pure joy. What a delightful miracle that these major educational aims should be fulfilled by a subject which we take up just for the fun of it. Of course, the art of teaching, like every other art, suffers from mechanical-minded practitioners. Most teachers are not artists. Their imagination has never been enkindled by Promethean fire. They can only do unto others as somebody has already done unto them. Their teaching, even of history and literature, is as dry as the multiplication table. Dramatics fortunately has not yet been decimated by the standardizing educational dragons that lay everything out in paper patterns at our state capitols.

Teachers of dramatics are still free to seize the precious opportunities before them. If we are something more than mere dabblers in light and color, in dancing and grouping, in the caterwaulings of the occult, or the fluttering of fantastic costumes;—if we can reveal the motives that move man, the hopes, fears, courage, sacrifice, that men hide in daily deeds; if we can introduce our students to the full, rich life of humanity; if we can help them to experience for themselves the kindling glow of imagination, the drive of a great purpose, the depths of profound thinking, the breadth of sincere sympathy, and the height of genuine joy that sweeps a man into victorious living;—who then dare pronounce our work unworthy of a place in the curriculum?

SINCLAIR LEWIS ON PUBLIC SPEAKING*

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READERS familiar with Gladys Hasty Carroll's *As the Earth Turns* will remember what excellent use is made of debating as a device for exhibiting the character of Oliver Shaw, the only studious one of this Maine brood. To see one's own peculiar line of endeavor employed in a novel is always arresting. Meeting thus with debating in this story, one starts thinking about other fiction which utilizes public speaking as a means of revealing character. *Ann Vickers* comes to mind. Sinclair Lewis, we recall, leans heavily upon public speaking situations to disclose Ann's motives and character. In *Elmer Gantry*, also, he employs public speaking to reveal character. It may prove interesting to discover the extent of Sinclair Lewis's preoccupation with public speaking. As we go over the important novels of Sinclair Lewis, it appears that this sole American author to receive the Nobel prize for literature evinces more than a desultory interest in public speaking. Public speaking offers the prolific satirist of the American scene repeated opportunities for telling thrusts. Public speaking is a peculiarly American interest. As a member of the faculty of the Floating University, I often encountered some difficulty in explaining to the Japanese, Portuguese, Siamese, *et al*, that I was teaching Speech, because they do not teach that subject in their universities. How discerning, then, of Lewis to choose public speaking as a device to show distinctly American traits.

It is likely that we teachers of public speaking are as fully aware of the possibilities for sarcasm existing in our field as Sinclair Lewis is, although we may lack the ability to express our amusement. But we should welcome anyone who can entertain us by showing the foibles in our precinct. It is not necessary to have the skin of a pachyderm to withstand the satirist's barbs and arrows. We must not be indignant or self-righteous at what he shows us. There is so much truth in what Lewis says that we must laugh. One reviewer of *Ann Vickers* raises the question, "Is Sinclair Lewis a satirist or a

* Presented at the 1933 Convention of the NATIONAL ASSOCIATION OF TEACHERS OF SPEECH IN NEW YORK CITY.

realist?" In dealing with public speaking, at least, Lewis is a kindly satirist.

The elocution of yesterday needed the finger, if not the whole hand, of scorn pointed at it. Has anyone ever pointed more effectively than Sinclair Lewis in this passage from *Main Street?* "Ella is our shark at Elocution. She's had professional training. She studied singing and oratory and dramatic art and shorthand for a year in Milwaukee." Linking elocution with shorthand is masterful. The author shared his generation's feeling for the term "elocution."

Now when Sinclair Lewis wants to show quickly what an intellectually lazy fellow Elmer Gantry is, he turns to public speaking. Elmer shuns debating because it takes too much work. Elmer frowns upon members of the debate squad, described by Sinclair Lewis, not unaptly, as "rabbit-faced and spectacled young men." Elmer would rather crib his thoughts from great orators than work out his own. Sinclair Lewis shows some acquaintance with oratory in this connection: Daniel Webster, Henry Ward Beecher, Chauncey Depew, and Robert Ingersoll, all stars in the oratorical firmament, were subjects of study by the class in public speaking at Terwillinger College. Ingersoll, whom Beveridge called one of the four great American orators, was never better than when he uttered those unforgettable lines about love: "Love is the only bow on life's dark cloud. It is the Morning and the Evening Star. . . . " It is this passage which Lewis appropriates for Elmer. When Elmer gets stuck in a speech, he falls back on these lines to chant an audience into the hollow of his hand and to astonish his class-mates and professors with his powers of oratory.

It is probable that Sinclair Lewis has a healthy respect for debating as a discipline. However, debating is often prostituted, and in its abuses there is opportunity for satire. In *Main Street* Vida says:

> These people that want to change everything all of a sudden without doing any work, make me tired! Here I have to go and work for four years, picking out the pupils for debates, and drilling them, and nagging at them to get them to look up references, and begging them to choose their own subjects —four years, to get up a couple of good debates! And she comes rushing in, and expects in one year to change the whole town into a lollypop paradise with everybody stopping everything else to grow tulips and drink tea.

Why did not the author characterize Vida by mentioning some of her other activities? At any rate, we get an idea of Vida in a short paragraph. Somehow debating, and an interest in it, indelibly stamps

her. Debating is serious. Debating takes time. Debating is not synonymous with tulip-growing or tea-drinking.

It will be remembered that Ann Vickers resigned from leadership in the Y.W.C.A. for moral considerations. Because of her intellectuality and her desire for leadership, she went into debating, where she was an immediate success. Here again the public speaking situation is suited to Sinclair Lewis's needs. The author wishes to show a streak of insincerity running through Ann, to show how she can accept the current canons of success and live up, or perhaps we should say, down, to them. Incidentally, the director of debating is afforded the opportunity to chuckle.

> A few lessons in Public Speaking taught her to stand straighter and more still and added to her natural urgency a professional trick of imbecile gestures which—for no perceptible reason, unless that the gestures were inherited from sound, seasoned witchcraft—seemed to carbonate audiences till they fizzed like soda water. . . . This new staginess, backed by her genuine sense, made her a riotous debater, and she was chosen leader of the team that went on a great adventure, far to the north, to debate with the celebrated and undefeated team of the Southern New Hampshire Christian College for Women the topic: "Resolved: That the Church is More Important than the School." Ann, who didn't believe anything of the kind, led the affirmative. . . . After the other debaters had prettily spoken their pieces in favor of church or school, like nice girls in a class in elocution ("The question, don't you think, my dear friends, is whether the Little Brown Church in the Wildwood, the Little Brown Church in the Vale, for all its dearness to our hearts and mem'ries, is any more sacred than the vision of the devoted schoolma'am in the Little Red Schoolhouse by the Road Where the World Goes By")—after all these pansies and dewy rosebuds of thought, Ann tore loose, forgot nice ladyness and, quite convincing herself for five minutes, savagely trumpeted the glories of the church—inspirer of the crusades, architect of the most glorious buildings ever seen, prophet which taught the schools the moral basis without which their little lessons would mean nothing, founder of our perfect democratic government, arouser of the heathen bowing down to wood and stone. "The school, yes, it is our older sister, kindhearted and loyal, but the church, it is our mother, who gave us birth and life and all we have! Forgive me, oh, forgive me if I offend the decorum that many think proper in a debate—forgive me if I speak too hotly—but who can be calm and decorous when folks analyze, when they criticize, when they mock at one's own, only mother?". . . .
>
> In a fury of popularity, in a maelstrom of politics without policy, she raged through the senior year, regaining whatever she had lost by apostasy and the rumor of having been jilted by Doctor Hargis. Her room—her single room—became the gathering place of all the debaters, economists, future settlement-house workers and other intellectuals of Point Royal, and over hot lemonade they settled Suffrage, World Peace, and the Problem of Wages.
>
> She called on girls whom she disliked. She was blandly affable on the campus to girls whose names she did not remember. Especially she plotted

in and for the Debating Association. She awed the whole college by the stupefying project of wangling a debate with Vassar, which had regarded Point Royal as on a level with agricultural schools, Catholic academies, and institutes for instruction in embalming.

No other activity on the American college campus has such possibilities for exhibiting character as debating. The revelation of Ann's inner life was Sinclair Lewis's chief concern. The author's powers of observation gave him much to lampoon and so to display his most brilliant gifts. The above picture is distorted, to be sure, but only the myopic will fail to see the humor. There is enough truth in his jibes, which he no doubt wrote with his tongue in his cheek, to make us smile and occasionally wince.

In *Babbitt*, Lewis satirizes the correspondence schools. There is a prize take-off advertisement of the correspondence course in public speaking. Babbitt's relation to the public speaking situation comes up for raillery many times in the course of the book, and much of his life and thought are revealed in these passages. Every teacher of public speaking who has read the book has, I dare say, chortled indulgently at the badinage in the four pages in which Lewis pays his respects to Palmerism.

He snatched from the back of his geometry half a hundred advertisements of those home-study courses which the energy and foresight of American commerce have contributed to the science of education. The first displayed the portrait of a young man with a pure brow, an iron jaw, silk socks, and hair like patent leather. Standing with one hand in his trowsers pocket and the other extended with chiding forefinger, he was bewitching an audience of men with gray beards, paunches, bald heads, and every other sign of wisdom and prosperity. Above the picture was an inspiring educational symbol—no antiquated lamp or torch or owl of Minerva, but a row of dollar signs.

There follow some laugh-provoking descriptions of POWER AND PROSPERITY IN PUBLIC SPEAKING. The pedigree of the professor, supposedly given by himself, is especially diverting.

Prof. W. F. Peet, author of the Short-cut Course in Public Speaking, is easily the foremost figure in practical literature, psychology and oratory. A graduate of some of our leading universities, lecturer, extensive traveler, author of books, poetry, etc., a man with the unique PERSONALITY OF THE MASTER MINDS, he is ready to give YOU all the secrets of his culture and hammering Force, in a few easy lessons that will not interfere with other occupations.

The address is SHORT-CUT EDUCATIONAL PUB. CO.

Desk WA Sandpit, Iowa.

The character of Martin Arrowsmith, as well as that of his wife Leora, is brought out by showing how Martin reacts to the lure of the speaking situation. Martin, in line of duty, is called upon to make a speech. The audience reaction is beyond Martin's expectations. Members of the audience are full of praise. It goes to his head. But Leora keeps Martin's feet on the ground, and his purpose in life uncompromised. Sinclair Lewis shows in this episode that he has felt one way or another the glamor of public appearance.

> Somehow he was standing by the reading desk, holding it for support, and his voice seemed to be going on, producing reasonable words. The blur of faces cleared and he saw individuals. He picked out a keen old man and tried to make him laugh and marvel.

This sounds like an excerpt from a book on the psychology of the public speaking situation. There are other illuminating remarks on the occasion of Martin Arrowsmith's first public speech which show that Sinclair Lewis has an intimate acquaintance with the problems of the public speaker.

Elmer Gantry, Ann Vickers, Babbitt, Arrowsmith, Vida,—all give us intimate glimpses of their inner selves by means of their performance on the platform and their attitude toward public speaking. Although it is trite to say that speech is the most obvious part of a man's personality, that truth helps us to realize why Sinclair Lewis employs the reaction of his characters to appearance in public. This employment is more than a trifling bit of technique. One would hesitate to bring the matter up if it were employed casually. But when an author depends upon it again and again, and more deliberately as he grows more mature in his art, the expedient is worth noting.

This discussion may well close by pointing a moral which Lewis would also no doubt endorse. To the unthinking (Elmer Gantry and Babbitt belonged to this class) does not public speaking seem to open a quick and easy way to success in American life? Is there not a danger that public speaking may symbolize the emptiness of much of our culture, our speaking without something to say, our emphasis on form, on window dressing, rather than on substance? We teachers of public speaking can see to it that public speaking does not descend in the scale of human values to the position that elocution lately held. We may laugh when we read the following excerpt from Babbitt, but we may also resolve that what was true of Chan Mott will not be true of ourselves or of our students.

It certainly is a fine thing to be able to orate. I've sometimes thought I had a little talent that way myself, and I know darn well that one reason why a four-flushing old back number like Chan Mott can get away with it in real estate is just because he can make a good talk, even when he hasn't got a doggone thing to say.

EDUCATIONAL OBJECTIVES OF SPEECH RE-EDUCATION

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THIS paper is concerned solely with that phase of the University elementary and secondary school curriculum dealing with the handicapped individual. As we use the term, speech re-education refers solely to the techniques and methods of retraining or otherwise modifying the student's habits and behaviors so that his speech meets the standard of his group. And in that sentence is implied a definition of speech difficulties, or, as they are more commonly, if less charitably and kindly, known—speech defects. A speech difficulty is any deviation from the norm which is sufficiently marked to call attention to itself and to stamp its possessor as a deviate from the normal social pattern. Under this general heading are included stammering, sound substitutions such as lisping, dialect pronunciation, infantile perseverations, and the various forms of deficient or inadequate voices.

We are not concerned with the general problem of speech training, or its place in the educational scheme. We shall attempt to answer solely the question, "What are the legitimate educational objectives of this remedial work, and how may it fit into the schools?"

Modern curriculum revision began about twenty years ago. At that time the only available criteria for determining a curriculum were prevailing practices, and the subjective opinions of those interested in educational techniques. But now several new approaches to curriculum building are distinctly evident. Education is following the lead of industry and the church and is setting up definite objectives and measuring courses of study in accordance with their ability to meet these criteria. Another new approach lies in the social emphasis. Increasingly the criterion of socialization is being used to distinguish between, or to emphasize, certain curricular items. And

psychological methods of objective analysis and study are determining the fitness of the curricula for the students and of the students for curricula. Under the influence of these more recent concepts, many changes have taken place in the educational system. Now adays, beyond question, if we are to insert a new activity or study into the already overcrowded scheme, we must show a real meeting of objectives.

When one attempts to tabulate educational objectives, however, he is met with a bewildering array of concepts. And so I realize full well that any list that I may present will be open to discussion and debate. But in spite of that, I shall present three which seem to be typical and advantageous educational objectives.

The first one is by no means a new one. It may be indicated by several phrases: stimulation and development of the learning process; training in the process of acquisition of needed information; equipment for an intellectual and cultural life; and the like. Man is a learning organism; his racial heritage consists of few pre-formed activities, but a large capacity to learn. His long period of helpless infancy is only one indication that he has turned away from the safe stupor of the plants and the instinct-ridden economy of the insects and has taken the dare of freedom to learn and adapt. I suppose if there is any one primary educational objective, this is the one. Certainly it is about the only one we had till two decades ago.

The second objective to be considered is the preparation for leisure time. Children in our schools are preparing for an entirely different world from the one their parents faced. Tremendous industrial and economic changes have completely revamped society in the past few years. I am not now referring to any era of depression or climactic malfunctioning of the economic system, but to a steady growth throughout the past years. Under the drive for profit, mass production and inventive genius have standardized operations and replaced men with machinery till, even before the era of depression, we faced the grim spectre of men out of work; a condition that was not alleviated by the nice title of technological unemployment. The way out in the past has been through the reduction in working hours, and the consequent employment of more men. That probably will continue. The average working day has been shortened three hours in the last ten years. We are now at the place where the five-hour day and the five-day week for industrial workers are not Utopian dreams but economic and survival necessities. The schools must

prepare our young people more adequately for profitable and safe use of this increased leisure time.

One more objective should be considered, that of preparation for social life, or as it is known in brief—socialization. We are all familiar with the tendency to crowd more and more people into small areas; we live in a welter of things and people, duties and obligations. A philosopher has remarked that people are just like porcupines out in the cold. If we get too far apart, we freeze to death; if we get too close, we stick each other. Our present economic and social scheme, plus our habits, can probably be counted on to see that we do not get too far apart, and the public school will have to take care of that quite human tendency to jab each other at tender places. In other words, the schools must prepare for life in a terrifically complex social environment, with all its opportunity for maladjustment, enmities, and unhappiness.

These three educational objectives, then, seem to me to be at least as important as any others: stimulation and training of the ability to learn, preparation for the use of leisure time, and socialization. In further discussions of these objectives, remember I am not talking about the entire school population, but simply about that portion, varying from 6% to 10%, whose speech is noticeably different from that of their fellows. Can a program of speech re-education meet these objectives? In other words, does it belong in the school system?

A program of speech re-education is indicated if these handicapped people are to achieve the first objective of any curriculum. The modern school works not only to provide the student with actual information, but also to develop a certain desire to study and to learn. The school attempts to develop a positive approach to study, an enthusiasm, rather than merely a passive and negative acquiescence to the demands of the teachers. To do this requires proper manipulation of rewards and punishments, so that scholastic achievements are coupled in the experience of the student with definite gains and approvals. But with the individual suffering from a speech difficulty, this manipulation is impossible. For him the entire learning process is reversed, particularly in the lower grades. He is punished for reciting and rewarded with peace for remaining silent. This is the reason the speech cases are retarded in school; not because their I.Q.'s are lower. This is the reason they drop out early in the academic march; not because they may not have the

power or the desire to continue. They will not take the punishment. It is only through the elimination of speech difficulties that the schools can meet completely this first objective.

What may a man do with his leisure time? He may work on his car, build a television set, work in the garden, take a walk in the country (if he can find any between the billboards and hot-dog stands), or hunt up a library and read. But to most of us, leisure time means time spent with our fellows in mutually enjoyable activities. But to be the target of ridicule and mockery in every group, to lack ease and facility in communication of ideas and enthusiasms—certainly these are not encouragements to community of effort and co-operative pleasures. The individual with the speech handicap is prepared for one way of spending his leisure time, and one only—by himself.

Concerning the third objective, that of socialization, much has been written. Through careful case studies, through the confidences of speech cases themselves, and through our own observation of their behavior, we know that speech difficulties and social maladjustments go together. Fear, dread, shame are the portion of the sufferer from a speech handicap. Ours is a talking civilization; we live and have our being on the basis of oral communication. We make no allowances; we insist that the man with the speech difficulty shall meet us on our own ground—oral communication. But any deviation from the usual speech pattern attracts attention to the variation and fails to elicit the normal response. Both speaker and auditor respond abnormally to this skewed situation. Reclusiveness, introversion, sullenness, and suspicion are the inevitable social adjustments to a speech handicap. Without speech re-education, a certain portion of the school population can never have an adequate social adjustment —cannot be socialized.

It will be noticed that I have said nothing concerning the futile efforts, the struggles, and the agony of the person with a speech difficulty. I have kept this discussion on a coldly academic level of educational objectives and the means of their attainment. But the conclusion seems inescapable that no school system can meet these objectives completely without a definite program of speech re-education throughout both the elementary and secondary schools.

PIONEERING IN THE STATE COURSE OF STUDY IN SPEECH*

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A GROUP of thirty-two seniors in the Bolton High School of Alexandria, La., will this year enjoy the unique distinction of being the first class in Louisiana to receive recognition from the State Board of Education for work done in the newly accredited course in Speech. This too-long delayed recognition of the value of speech training in the high school has, unfortunately, come at a time when few of our secondary schools are in a position for expansion; but it is inevitable that within the next few years the Speech course will assume a place of major importance in the high school curriculum. To the numerous teachers who will soon be inaugurating this work throughout the State, some of my experiences as instructor of the first speech course will probably be of interest.

The course of study comprises one-half unit in Fundamentals of Speech, one-half unit in Public Speaking and Debating, and one-half unit in Interpretative Reading and Drama. Fundamentals of Speech is a prerequisite to the other two. Its purpose is to instruct in all phases of speech: diction, voice training, poise and accuracy and the overcoming of speech defects; and to set a standard for good speech which will prepare the student for the more difficult tasks involved in drama, debate and interpretation. In point of practical value it is by far the most important of the three courses; and because its aims and methods are probably the least understood, it is this course the problems of which I shall attempt to outline.

In initiating a speech course I found myself faced with a boundless enthusiasm—and almost hopeless misconceptions as to its purpose. To correct the latter without destroying the former was my first problem. The misconceptions of speech training too long prevalent under the excellent but perverted titles *elocution, expression, declamation*, etc., had to be done away with at the outset. Those who scheduled the class with the idea that over-night they were to be taught "declamations with gestures" were disburdened of the idea gently, but firmly. In its place a new concept of the broader and

* Delivered at the 1934 Convention of the LOUISIANA SPEECH ASSOCIATION.

ultimate purposes of good speech had to be implanted: speech as the basis of effective personality, as a means of influencing one's fellows, as an hourly instrument by which an educated individual controls his workaday environment. After almost a week devoted to a discussion of these revolutionary concepts, I was rewarded with a complete reversal of attitude, a unanimous desire to get beneath the artificialities to the heart of the problem.

To this end the class set about formulating certain standards of good speech which might serve as guide-posts along the way. With very few directions from the instructor, they decided on nine characteristics of the good speaker which they set themselves to master in the term's work. Since these correspond so clearly to the principles of good speech set down by Doctors Wise and Gray in *Bases of Speech*, I shall give them the terminology of that text:

1. Good voice quality
2. Optimum pitch
3. Flexibility
4. Adequate projection
5. Animation
6. Communicativeness
7. Good articulation
8. Absence of fear and timidity

and a ninth added by the class—mastery of materials. These nine principles we have held constantly before us. They constitute an outline of the course. One by one we have studied how to go about mastering each. One by one individual pupils have been able to say, "I've come half-way along the road to acquiring good speech. I've mastered excessive fear and timidity. I've found my optimum pitch. I have adequate projection. I have learned to master my material before I attempt to speak. I recognize the value of animation. (Incidentally, the best definition that I have heard of *animation* in speech was given by a very intelligent football player in the class. "Animation," he said, "is what coach calls the 'scoring punch'!")

The hardest battle, and yet the most interesting, has naturally been fought in acquiring precise articulation and clear enunciation. The class for the most part was amazed to discover that good diction is not a problem that can be solved by a constant reference to the dictionary—or that it involves anything more than a knowledge of where to place the accent in unfamiliar words. Before introducing that very fascinating subject, I asked every pupil to talk for one minute. In half-hour's time I heard practically every characteristic error in southern speech; the dropped final consonants, the "stren'ths" for "strength's", the nasalizations, the "caint's" for "can't's" the "wuhick's [wɜɪks] for "work's" [wɜ:ks], etc. etc. One by one they

were pointed out. The group reaction was hardly encouraging. "These errors are so firmly rooted in our speech that we can't eradicate them"; "we can't *hear* the difference between *pen* and *pin*"; "people will think we are 'affected' if we adopt such pronunciations." Combating these attitudes is one of the hardest problems of the pioneer; —once they are overcome, the battle is half won. It has taken me weeks and weeks—and in certain individual cases months—to overcome them; but it can be done. Today my pupils take great pride in being "different," and as a new error is mastered, look forward eagerly to weeding out the next. And they are all far more critical and uncomprising than I in condemning false and slovenly word production.

Once the pupils became concerned over the matter of good diction, it was necessary to maintain a delicate balance lest the class swing to extremism. The average high school pupil allows of no comprise. For that reason it is extremely important that he understand just what standard of good diction he is striving to acquire. When it was pointed out that speech is regional, and that the best speech for any individual is the cultured speech of the section in which he lives, the class was given a working basis by which they might govern their acceptance of new pronunciations. Once the class realized that the standards of good southern speech necessarily differ from those of New England, they were no longer inclined to adopt every fantastic pronunciation they saw in the dictionary or heard at the cinema or on the radio.

The peculiar problem of the speech teacher in the South is not to eradicate the beautiful southern "r"—but to point out the value of the linking "r"—that is, the "r" between vowel sounds—and to teach it as a characteristic of good southern speech; not to advocate the use of the Bostonian "cahf"—but to weed out the grating nasalization of the "ă" [æ] sound that is heard too frequently in words of that category; not to stamp out the soft richness of the measured speech of the southerner, but to eliminate the exaggerated drawl which results in diphthongization of every vowel sound. At the same time it is the problem of the speech teacher to make clear how much ignorance of the history of English sound is implied in the adaptation into southern speech of a few sounds entirely foreign to it—such as "eyether" for "either," or "ahnt" for "aunt;" and to explain why it is permissible for Mr. John Barrymore—trained in English diction of the stage—to become a law unto himself and say "formid'able" in

his current film, but why it would be absurd for a Louisianan to say the same thing.

These manifold aspects of diction make it at once the most difficult—and yet the most fascinating phase of speech training. The teacher's problem is a dual one: not only to strive for a mastery of all the slovenly errors in southern speech—but—perhaps even more important—to set a standard by which the child may judge his own speech and that of his fellows, and to give him a working knowledge of the principles of good diction with which he can constantly improve his speech.

I have said a good deal about aims and too little about methods. The class room method in a speech course must necessarily depart from the usual routine. Since the only way to learn to speak *is* to speak, the work is so arranged that every pupil has an opportunity to stand before the class and speak as often as possible. Once a week the instructor lectures on a new unit; three days a week the group discusses and makes application of these principles; and on Friday the weekly test is given. On that day every pupil is required to speak for at least two minutes, the nature of the material used depending upon the nature of the work covered the preceding week. If the chief work has been done in articulation, it may be a passage containing particularly difficult consonant combinations; if the aim of the week has been to achieve communicativeness, it may be an original talk of a persuasive nature; one week the immediate purpose of the test may be to check on the individual's ability to walk upon the stage without nervousness, change position with ease, address his audience without embarrassment, and retire from the stage without awkwardness. Each week the individual strives to come a little closer to the ideal; the "compleat speaker" who combines in himself at once every quality of a good speaker.

These Friday classes are the real joy of the teacher. As an instructor she retires from the picture. A different chairman each week presides, calls on the speakers in whatever order he sees fit—and speaks himself at whatever point he desires. The class has learned to assume the French audience attitude "J'ai assiste à un concert"—"I assisted at a concert." They give their attention because they have come to realize that a speech is not a speech unless it is a mutual communication between the speaker and his audience. On the other hand, the speaker is responsible for holding his audience's attention. The result has been a gratifying sense of responsibility on the part of the

class for the success—and very incidentally—the good grade of each speaker. This implies that these tests are conducted under real audience-speaker situations. On test day, the class meets in a room equipped with a small stage where the speaker becomes accustomed to talking under circumstances where every defect is amplified.

The teacher's rewards in teaching speech are richer, I believe, than in any other field. They come from such unexpected places—from parents who confess that speech in the home has been revolutionized since Johnny no longer allows them to say "the-ay-ter" for "theater," "inergy" for "energy," "bes' " for "best," or "se'f" for "self"; from other teachers who find that the pupils receiving speech training are showing noticeable improvement in the clearness and ease of their class room recitations; from the pupils themselves who vie in correcting each other's slips, who never let a day pass without commenting on errors in speech over the radio, in the picture show, in their assembly programs and in the public performances of members of the class who show that they are endeavoring to put into practice the principles of good speech. Most of all, teaching a class in speech requires a more rigid self-discipline than any other. I never expect to address any other audience one-half as critical as the thirty-two youngsters I face for one hour each day, and I glory in the privilege.

The growing number of teachers in the state who are equipped to teach speech have a challenging work before them. Their immediate aim must be to achieve a speech course in every high school in Louisiana. The second is to insure speech training for every child from the time he enters high school until the time he leaves. One year is all too short to overcome the habits of a lifetime of slovenly speech and to fortify the child against lapsing in the years to come. Someone has rightly said that to train the child in good speech we must begin with his grandparents. Since we can not do that, we can do the next best thing: cultivate the habits of good speech in every child from the freshman through the senior years—and when he has graduated he will—perhaps—not depart from them.

DEBATING IN ILLINOIS HIGH SCHOOLS

THEO. F. NELSON

Mendota (Ill.) High School

DEBATING, as an interschool competitive activity, has been challenged by educators and by the public in general. Speech journals and school magazines are replete with articles dealing with the alleged evils and shortcomings of debating. Inspired defenders of the cause have as often retorted vociferously and vehemently to the charges which have been made.

While these harangues have been in progress, debating in American high schools has become more and more popular. Every year more high schools are engaging in the activity, despite the curtailment of so called "frills" during these years of treasury depletion. Challenges and charges notwithstanding, debating seems likely to remain a vital phase of speech education in this nation.

However, the challenges, so far as they demand valid justification of this activity, should continue to serve an important function in integrating and improving all aspects of debating in its relation to the final objectives and functions of the larger speech program. Pertinent to such integration and improvement will be a program of investigation of present debate activities, together with an intelligent evaluation of those activities.

With the general purpose in mind of attempting to gather information about the methods of conducting debate activities in Illinois high schools, and with the hope that such information may prove useful in evaluating those activities to the end that debating might develop into a more desirable speech activity, the writer undertook to conduct a survey of debating in the high schools of Illinois. The purpose of this article, therefore, is to present the results of that investigation.

The results may be presented in such a way that they will answer the following questions: How many students participate in debating in Illinois high schools? How are these debaters selected and trained? How are debate cases, speeches and rebuttals prepared? How are local debates conducted? and How are debate activities financed?

The following figures and percentages are based upon the responses made by 43 high school debate directors to a questionnaire

checklist sent to 69 directors throughout the state. (Approximately 62% of the directors, therefore, responded satisfactorily to the questionnaire.)

Number of Students Participating

In considering how many students participate in high school debating, it must be remembered that there are two groups to be classified. A considerable number of students participate in debating by becoming candidates for the debate squad, while a smaller number receive more extensive and intensive training by actually winning places on the squad. In this investigation it was found that an average of 30 students become candidates for the debate squad, the number ranging from 61 in the largest schools to 11 in the smallest. The number of members on the debate squad, on the other hand, ranged from 18 to slightly more than 8.

The figures become more significant when put in terms of percentages of total enrollment. Almost 4% of the total enrollments become candidates for the squad, whereas 1.4% become members of the debate squad.

The Selection and Training of Debaters

The question of how these students are selected and trained is also of great consequence. The candidates for the debate squad most frequently are enlisted during the month of December, and approximately 75% of the schools responding indicated that the enrollment occurred between the months of October and December.

Seventy-seven per cent of the responses revealed that these candidates were enlisted either through the voluntary choice of the students after a call had been issued for candidates, or through personal interviews with the more promising students. In the larger schools, contacts with students were secured through class or school speech projects. The English department also served as a medium through which prospective debaters were enlisted.

Evidently the length of the training period of the candidates has a great deal to do with the effectiveness of the training that they receive. The median number of weeks of the training period for candidates was found to be 4.5. Fifty-six percent of the total responses indicated the training period to be more than four weeks, and almost 30% of the schools trained their candidates for a period of two months or more.

Only 20% of the schools limited the training to preparing and delivering memorized or extemporized speeches; 48% provided training by studying the principles of debating and the proposition for debate, and by giving instruction and practice in the art of public speaking.

After a period of time ranging from two weeks to more than two months, almost all debate directors reported that a debate squad was picked from among the debate candidates. Two methods were typical of the manner in which the members of the debate squad were chosen. By the first method, represented by 58% of the responses, the debaters were selected by the debate director himself on the basis of the candidate's interest and ability as shown during the training period; by the second method, designated by 44% of the schools, the debate squad members were selected by means of try-outs.

When the try-out method was in vogue, the candidates either gave speeches which they prepared themselves, or they participated in debates. During these competitive try-outs, the candidates' performance was judged either by the directors themselves, in 58% of the cases, or by the debate directors and other instructors in the school, in 37% of the schools.

With the members of the debate squad selected, the supervisor of debate faces the task of arranging for time periods during which the debaters may be trained further and prepared for the actual debates. With most of the debating on an extra-curricular basis, and with an over-crowded school day, finding time to hold these debate meetings constitutes a problem. That the debate directors are attempting to solve this problem in various ways is evidenced by the fact that 38% of the responses mentioned that school periods were being used for debate meetings, about 60% stated that after-school hours were used, 50% indicated that they held debate meetings during evening hours, and 40% stated that some use was made of Saturdays and Sundays for meetings of the debate squad.

The number of debate meetings per week ranged from 1 to 5, with a median number of 2.4. Twenty per cent of the coaches indicated that they held 2 or 3 meetings per week, and 15% and 13% responded that 4 and 5 meetings were held, respectively. More than 20% of the responses signified that the number of meetings depended upon the time of the season. The average number of weekly meetings was 3.19.

The meetings of the debate squad, in length of time, ranged from 30 minutes to 2 hours and 30 minutes, with the 1-hour meeting re-

ceiving 26%, the 1-hour-and-30-minute meeting, 18%, and the 2-hour meeting, 14% of the responses.

The total number of hours spent in debate meetings weekly in the 43 schools involved, ranged from 30 minutes to 8 hours. The average weekly hours per school was almost 4 and the median weekly hours was 3.5.

Assuming that the average debate season extends for 16 weeks, and using an average of 4 hours per week, the typical school would devote 64 hours of time to the training and preparation of debaters. This is equivalent to 13 weeks of a regular school subject which requires 5 1-hour periods per week. This, of course, does not include the outside time spent in reading and research, nor does it include the time spent in traveling to, participating in, and traveling from debates.

An effort was projected to determine the nature of the activities engaged in during these debate meetings. Four different types of activities were found to be popular: Discussing the principles and technics of debating, discussing the main arguments, pro and con, of the year's proposition, holding practice debates, and giving training in the preparation of debate speeches and rebuttals. Other activities receiving mention were reading of material, training and practice in speaking, discussions pertaining to debate strategy, reports on certain phases of the subjects under discussion, and drill periods, consisting of questions and answers.

Preparation of Debate Cases, Speeches and Rebuttals

Debating in high schools has been criticized severely by educators and others on the score that the debaters are merely robots who are trained to expound profound controversial statements and subtle stratagems, with gracefully executed gestures, in artificial, though high-sounding, rhetoric. The section that follows aims to present what debate directors in Illinois reported about the way in which debate cases, speeches and rebuttals were prepared.

Every debate team has some kind of case, brief, or plan of attack. How are these cases, or plans of attack, developed? Only 3 responses, or 5% of all the responses, signified that the debate case or brief was developed by the debate director himself. About 28% of the responses were made to the statement that "the debate case or brief was developed by the debaters themselves, with the help of the director's criticisms." Forty-eight per cent of the responses indicated

that the debate cases were developed jointly by debaters and director. According to 18% of the responses, the cases or briefs were developed from those found in reference materials.

One who listens to a debate frequently reflects upon the matter of who prepares the constructive speeches. Thirteen per cent of the schools replied that the constructive speeches were prepared entirely by the debaters, 72%, that the speeches were prepared by the debaters with the assistance of the director's criticisms and suggestions, 11% that they were prepared jointly by debaters and director, and 2% (one school) that the speeches were prepared by the director.

Forty schools gave information about the type of speeches used in the constructive argument. Thirty-seven per cent of these schools used all memorized affirmative speeches, 17% used all extemporized affirmative constructive speeches, and the remaining 44% used both memorized and extemporized constructive speeches for the affirmative. The practice in the negative constructive speeches differed from the practice in the affirmative in that a higher percentage—40%—used all extemporaneous speeches.

In the matter of preparing the rebuttals, no school stated that the rebuttal speeches were prepared in advance by the director; only 1 school stated that the debaters prepared the rebuttals in advance; 17% of the responses recorded the practice of preparing the rebuttal speeches in advance by debaters and director; 58% indicated that the main arguments for rebuttals were outlined in advance by the debaters under the supervision of the director, and 21% responded that the rebuttal work was left entirely to the debaters, to be given extemporaneously by them on the basis of their knowledge of the proposition and of debating.

Conducting Local Debates

The last two phases of this study will be passed over rather hurriedly. The first of these, "How are local debates conducted?" may be summarized very briefly. Local debates were held most frequently during evening hours. Next in order of frequency of mention was the practice of holding the debates during school hours. Some schools reported that their debates were held after dismissal of school.

Admission to these local debates usually was free, but 25% of the schools stated that sometimes a small admission fee was asked.

Debate directors or instructors of speech were used as judges by 78% of the schools, and all schools except one used critic judges for their conference debates.

A majority of the schools replied that their teams were prepared for conference debates by means of non-decision debates with teams from other schools. About 45% of the schools had second teams which were used to provide practice for the first team debaters.

The debate awards were purchased by the schools in 60% of the cases, while 30% of the schools indicated that some of the awards were purchased by the debaters themselves. Debate letters were the most popular types of awards. Seventeen schools stated that debate keys or rings were used as awards, and 9 schools signified that school credit was allowed for debating, the credit ranging from .2 of a credit to 3 credits.

Financing Debate Activities

Financing debate activities is one of the most serious problems confronting debate directors. Directors frequently are heard asking one another, "How do you get money for your debate activities?" or "How much money do you have to spend for debating?"

This investigation disclosed that 47% of the schools responding obtained their funds from the Boards of Education; 31% procured their funds from concessions and entertainments; and 22% obtained their funds from both of these sources.

The average budget for debate purposes was $60.66, the median budget was $48.33, and the range was from $2.00 to $150.00. One school reported a maximum pre-depression budget of $600.00. (This figure is not included in the range, but is included in the average and median.)

Debate funds must be used for several purposes. No doubt the greatest expense item is for judges. Thirty-two per cent of the schools replied that they expended from $5 to $8 for each critic judge, 25% from $2 to $5, 13% from $8 to $11, 11% from $11 to $15, and 16% of the schools procured judges without cost.

Another considerable item of expense goes for transportation. Fifty-eight per cent of 43 schools used debate funds to defray the expenses for transportation; while 20% allowed mileage, ranging from ½ cent a mile to 8 cents per mile, and 20% obtained transportation without cost to the debate fund.

Reference materials also consume a portion of the debate funds. However, 40% of the schools reporting received reference materials by means of funds other than the debate fund. All but one of the remaining schools bought reference materials with money obtained from the debate account.

MAKING STORIES LIVE FOR CHILDREN

HELEN OSBAND
Alabama College for Women

IN SPITE of the fact that children adore stories and that educators attest the value of well-told stories, story-telling as an art is very little practiced. Perhaps a realization among the teachers themselves of the difference between the story read, the story memorized, and *the story told,* as well as the high reward usually experienced by the teacher who can tell stories, might aid in developing good story tellers among the teachers.

For this reason we have developed at Montevallo a laboratory course in Story-telling, and the basis for this discussion must be the experiments we are making in this course. The aim of our college course in story-telling is to acquaint the future teacher thoroughly with the stories best suited to children of different ages; to develop in her an individual charm in the telling of stories; to help her tell her stories clearly, in good English, with correct pronunciation; and to help her to appreciate the real value of the story.

Another very important feature in the story-telling course is encouraging children to tell their own stories—a most important development for the child. We encourage the students to tell original stories on special days. For instance, on Hallowe'en we try to suggest to the children ways of having a good time without playing destructive pranks. We take ideas from grown-up magazines. We also suggest good current magazine stories that can be adapted for telling. We try to have the student ready to teach the school with an inadequate library, and to be resourceful in her ways of getting and presenting material.

Our program of stories to tell to the children is something as follows:

First Grade: Nature stories, nonsense stories.

Second Grade: Animal stories, stories of famous pictures.

Third Grade: Fairy tales. (We find Japanese fairy tales among the favorites.)

Fourth Grade: Hero stories, (such as 50 Famous Stories Retold, Baldwin), stories of great men and women.

Fifth Grade: Travel tales, "True Stories," historical tales.

Sixth Grade: Mythological tales, folk lore.

Dramatizing the Story
"Hansel and Gretel"

The story was read until the children were thoroughly familiar with it.

Teacher's suggestion: Don't you think it would be fun to make this into a play? How could we manage to have just *one* scene?

Third grade girl: Well—we *could* have the forest scene near the witch's house and . . .

Boy (interrupting): Yes, and Hansel and Gretel would be asleep and Gretel could wake up and say, "How did I get here?" and then I would say (already he had identified himself with the character he wanted to play), "Why, Gretel, don't you remember last night Father and Mother brought us into the woods . . . ." etc.

Skeptical child: Well, we can't burn up the witch, can we?

Girl: Well, we can *pretend* to, and I'll get my grandmother to make us a witch cookie.

And so it goes. The parts are not memorized.

Little suggestion was made to the children on the building of the scenery. They used some old clothes-bars that folded like a screen for the witch's house, with paper tacked on them. The weirdest kind of scrolls, in the brightest of red, blue, and green, were their ideas of candy and sugar cookies. The prison for Hansel was an orange crate, equally as weirdly decorated; and the oven was a large cardboard box. To the children the oven was "hot as hot" and the little girl who played the witch was helped out of the back of the box hurriedly in order that she should not "really, truly get burned." I think the child would really have suffered if there had been no means of escape. Of course, it would be ideal if they did not have to play eventually for an audience, but such a goal is far distant for most of us, who must *show* what we can do.

A few quiet suggestions can usually be given by the teacher without making the children "audience-conscious." "Hansel, put your bone out the other side of the cage. It's darker there and the witch will think it's your finger." "Creep around the back so the witch won't see you coming to push her into the oven." "I'm sure the candy on the back of the house is much sweeter than on the front."

It is the teacher's tendency to want "*real* candy," or to insist on "real designs" that look exactly like cookies and cakes. This is done "for the sake of the children," but it is not their idea. It was found that even after an indulgent grandmother baked a cookie witch, it

didn't appear in the final performance. A cardboard witch, smeared with brown paint, made by a class member, was considered much the better "cookie" by his proud class-mates.

Pantomime

We try to give as much time as possible to pantomime drills. Nursery rhymes have proved most successful pantomimes.

Old King Cole is such a jolly old soul that his whole-hearted laughter sends the whole court into stitches. First, he calls for his pipe (no properties are used), which is carefully brought to him—lighted and puffed at; next his bowl is drained (with great care that the bowl he uses is the same size as the pretended one handed him). Is the bowl heavy or light? What is its color and content? It may be anything from milk to grape juice. Then, when his fiddlers three begin their irresistible music, the King keeps time, first with a tapping toe, then with his hands, then his whole body, and finally when he can resist no longer the pretended music sawed out by the fiddlers, he jigs gaily out of the room—all the court following in rhythm.

The Queen of Hearts is, of course, a favorite. The fastidious queen makes tarts with a great deal of assistance from her handmaidens, who hand her the sugar and spice and all things nice. She then plays "bean porridge hot" or "pussy wants a corner" with them while the tarts bake. These are finally set on the window ledge to cool. The Queen leaves. The knave is very, very sly and his antics never fail to amuse.

It takes a most skilled performer for enacting Simple Simon's simplicity; but the children like to have the whole fair with children buying pies from the pie man. Simple Simon's part is only *one* incident in a series of pie buying.

An interesting piece of work is afforded by pantomiming the household of Sleeping Beauty. It is decided how many rooms there are in the castle and what each room contains; then there is a great deal of conjecture as to what the different members of the royal family, as well as the servants, are doing when the princess pricks her finger. The children experiment with various poses characteristic of household activities and hold these poses until the prince journeys through the castle. He touches the princess' hand, and instantly activity begins. It is a fine exercise in bodily control, too—to be still and hold active-looking poses.

From the kindergarten through college a device we use for free-

ing gesture is the use of masks. When a child puts on a mask he assumes that he himself cannot be seen. Placed before a full length mirror, he will turn pirate or villain—shy or bold, as his mask suggests. Ten-cent-store masks can easily be painted for this purpose, though with proper equipment children can make their own.

Pageantry

The pageant seems the most harmless method of getting the whole school before an audience of fond parents. It is comparatively simple to string the year's activities on the thread of a central idea. For example, our Spring Pageant last year was based on the finding of the "May Queen." The gardens must be planted before the May Queen comes, and the first grade sang the rain songs and the planting songs that they had learned through the year; tip-toed as softly as raindrops fall, sowed seed, and marched with toy rakes over their shoulders. The second grade told us that in spring the animals come forth two by two; they sang their animal songs and hopped like elephants and kangaroos with great abandon. From the fourth grade maidens, who tripped through the English folk dance, to the sixth grade, who danced round a May Pole, it was found not to be difficult to arrange into one program songs and dances already learned. With a few orange spots on black bathing suits for the June bugs—crepe paper bonnets for the wee ones—a piece of cheesecloth attached to each arm for the butterflies—other pieces of cheesecloth for English folk aprons, plenty of color was achieved at little expense. Elaborate costuming is again our adult point of view. The child is satisfied with a piece of blue glass on a circle of cardboard, which will give him the crowning glory of an emperor.

EDITORIALS

It is observably common that new officials seem to experience an inaugural gift of tongues where they assume their offices. They frequently see visions, dream dreams, prophesy. Somehow the acting editor feels no such pentecostal fervor at the moment of shipping to the printers the bulky packet representing his first issue of the *Quarterly Journal*. Perhaps the weeks of sheer physical exertion in preparing the hundreds of pages of manuscript necessary for 150 pages of print calm volubility and inhibit pronunciamentos. More likely the sudden bewilderment of finding that there has unexpectedly fallen upon oneself the mantle of the distinguished scholars who have edited the *Quarterly Journal*—O'Neill, Woolbert, Dolman, Hunt, Weaver, Hudson—awes one to tentative silence.

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In any event, let us say that for the three issues requisite to the completion of Editor Hudson's term, it were well to follow substantially his excellent plan. Accordingly, for a time the *Quarterly Journal* is likely to look and read substantially like its usual self.

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If by the time the acting editor has become the editor he has thought thoughts and received convincing advice looking toward well justified modifications of policy, it will be soon enough then to revise credos, re-plank platforms, nail up new theses. Probably by that time we (it is interesting to find a first use for that unctious pronoun) shall have learned to do such things cautiously and advisedly, if at all. For the present, heartened by encouraging letters from seemingly almost everywhere, we set about the task of becoming oriented among the serious duties ahead.

* * * *

It is being said that we are not living in *changing* times; we are living in *changed times*. In respect to our economic structure, at least, that epigram has become a statement of truth with disconcerting suddenness. And changes in almost every aspect of life follow economic changes. What will happen to speech study and speech teaching? Will our present interpretation of our function

become obsolescent, like pianos and phonographs? Or obsolete, like pit orchestras in motion picture theaters and livery stables in Detroit? Professor Hayworth's article, *Shall We Prove Our Right to Live*, in the *Forum* of this issue, is disturbingly *apropos*. In *changing* times, we have some leisure to reassess the values of what we are doing; in *changed* times, perhaps we ought already to have reassessed them.

* * * *

The fundamental course in colleges and universities is a case in point. Even in the old days, before 1929, we had no uniformity of idea about it; we have none yet. Perhaps we should have none—can have none—considering the varying conditions from section to section of the country. But we ought to have more discussion of the fundamental course. Conventions ought to feature it oftener. The *Quarterly Journal* ought to be bombarded with opinions about it.

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For before we can get the fundamental course comfortably adjusted to these changed times, the times may again become changing times, requiring new adjustments. For example, the high schools will, we hope, presently be sending to the higher institutions students already prepared by adequate and appropriate speech training. These students will require a different menu from that which we may design for students who have had no speech study in the high school.

* * * *

These considerations re-emphasize the common observation that speech study and teaching is thus far a structure which has been built, not from the ground up, but the reverse. It has a roof—the college and university speech curriculum; it is slowly acquiring a framework just below the roof—the high school speech curriculum; here and there appears a little excavating or bit of masonry for the foundation—the overt attention to speech in the elementary school curriculum; in a generation or so, we may delve beneath the foundation and touch bedrock—careful attention to speech in the home. Then, indeed, we shall have to re-adjust curricula!

* * * *

But we shall probably continue to build from the roof downward. How shall we increase curricular speech work in high schools? Not by committees of speech associations solely. Not usually by ques-

tionnaires and surveys. High schools will adopt curricular speech rapidly if they can get it accredited. State departments of education are the important—in some states the sole—accrediting agencies. Committees and questionnaires seldom reach state departments. Individuals must do so. This commentator has found that state officials in Missouri, and again in Louisiana, have been willing, even eager, to accredit high school speech study—not in ideal quantity, nor in an ideal location chronologically—but solid, tangible speech study, *if he who urges the adoption of the course will write it*—i.e., will write a syllabus for the department bulletin. There must be other ways of making definite progress in getting speech into the high school. The pages of the *Quarterly Journal* are open to reports of such progress.

* * * *

Likewise these pages are open to corresponding reports concerning speech teaching in the elementary school. Just what is the disideratum here? Is it that elementary teachers should be required to take speech courses in preparation for their work? Should they pass a qualifying speech test before being allowed to teach? Can we thereupon have confidence that they will give attention to the speech aspects of the children's study of geography, arithmetic and physiology, even to the correct pronunciation of those three venerable names? This matter wants discussion. The *Quarterly Journal* invites it.

THE FORUM

The 1935 Convention; a Letter from the President

To my Colleagues:

It is my hope to present to you at our next annual convention in Chicago, Monday and Tuesday, December 30th and 31st, 1935, and Wednesday, January 1st, 1936, a program that will be of interest and value to you, and which will at the same time represent the most constructive achievement and thought of our profession in all branches of our field. I can do this only with the help of our members.

I desire to have your program representative of a wide variety of schools and colleges, of geographic sections, of subjects, and of interests; but I shall consider fully representative only that which makes possible participation by those who have most to contribute. Except in a few instances, it is difficult for me to know who has most to contribute; and so I am asking you to let me know. Please do not hesitate to suggest speakers and subjects. If you have yourself been engaged in experiment or research, results of which should come before our membership, please send me full information and an abstract of the study. I shall request a recognized scholar of the field of the study to advise me on whether the subject should be included in this year's program. All program suggestions should be submitted by May 1.

If you know of any problem which should be considered by the Association or its officers, I sincerely request you to draw the matter to my attention.

Sincerely yours,

Arleigh B. Williamson, *President*

From the Southern Association

The Southern Association of Teachers of Speech wishes to express to the members of the National Association the enjoyment that was theirs as hosts to the 1934 Convention. The coming of the national meeting into the South more than doubled the membership of the regional association and brought to the attention of both the

national and regional officers names of teachers of speech hitherto unknown and unlisted. The impetus of this important meeting will be felt in the various state groups which meet within the southern region. The results of this new interest promise to be more than merely temporary; they forecast a loyal co-operation with the national organization in the succeeding years.

The Southern Association of Teachers of Speech invites all schools of college rank in the South and all honorary forensic fraternities to enter their tournament to be held April 16th and 17th in the Cleveland Hotel in Spartanburg, South Carolina. Contests in debate, oratory, extemporaneous speaking and after-dinner speaking will be held. Various organizations which are members of the Southern Association have offered cups as awards (temporarily held) to the most successful competitor. All questions regarding the subjects under discussion, the payment of fees, and the regulations of the tournament may be addressed to Mr. A. B. Hoskins, Asheville Normal College, Asheville, North Carolina.

LOUISE A. BLYMYER, *Secretary*,
SOUTHERN ASSOCIATION OF TEACHERS OF SPEECH—*Berea College*

SHALL WE PROVE OUR RIGHT TO LIVE?

Among the impressions remaining from the 1934 convention at New Orleans, one realization stands out with startling significance. The speech teachers of the country are discovering that American higher education is rapidly entering a period of revolutionary change. During the New York City convention a year ago one or two speakers, assuming a prophetic rôle with much diffidence, hesitatingly suggested that it might be wise for us to be casting a weather eye to the future of our profession. But this year speakers frequently assumed that higher education is being shot through with philosophies that few people even dreamed of ten years ago, and it was pointed out that many institutions are already introducing new administrative procedures which demand the attention of every college teacher in the country. Colleges are being divided into lower and upper college levels. In the lower college level departmental lines are being wiped out. There is no elective work. If the administrative authorities choose to include speech training in the first two years, it will be required of every student; but if they do not look

favorably on speech work, there will be no room for speech training of any kind until electives are permitted in the junior year. This is one of the more significant developments in modern higher education, and it is evident that teachers of speech in many institutions are already beginning to encounter it.

Up to the present time, however, we have done nothing more than merely recognize the probability of an impending change. No one has yet put forth any suggestion as to what might be done to adjust ourselves to the change. In fact, it may be too early to attempt the formulation of any definite and concrete plan. But it is not too early to consider the issues involved and to turn over in our minds the fundamental principles which should govern our adjustment to the new order of things in higher education.

In the new development, colleges and universities are called upon for a close definition of their aims. Is the school of home economics to prepare teachers or housewives? Is the teachers college preparing young people to teach in city or in rural school systems? Does the engineering college assume any responsibility for health education or citizenship training, or for character development or cultural achievement? Is the liberal arts college responsible for training in oral expression as well as written English? Is the arts college obligated to inculcate the "scientific attitude," or an appreciation of literature? Heretofore it has been generally assumed that the professional colleges had definite aims. It was pointed out that the law school attempted to teach a knowledge of law, and the medical college tried to give its students a knowledge of medicine. Unfortunately these aims may not be wholly satisfactory. Instead of teaching a knowledge of medicine, it might be more justifiable for a medical school to try to develop more efficient physicians. Even the professional schools may have difficulty in defining what they are trying to do. But when we turn to examine the efforts of liberal arts colleges, we find their educational aims to be exceedingly vague and idealistic. They have wrapped themselves in a concealing cloak of self-satisfied aloofness. Now for the first time leading educators are admitting that the public, and more especially the students, have a right to know how the college proposes to influence the lives of its students.

The aims which a college attempts to accomplish have a significant effect upon its work. Every dollar the college spends and every program of endeavor upon which it engages should be for the pur-

pose of achieving these aims. The college administrator who deserves his position will see to it that every course offered in the curriculum and every outside activity should make their respective contributions to the avowed aims of the institution. Administrators who are efficient will demand scientific proof, if it is available, to justify every course. This thorough-going analysis of academic procedures is justified. It cannot be evaded or long delayed. It is inevitable. The profession of speech teachers should gladly accept this opportunity to find the facts as to the contributions which they are able to make to the education of American youth. Instead of waiting reluctantly until they are forced to defend their work, they should look upon the present situation as a great opportunity to prove the educational value of their work.

The Committee for the Promotion of Co-operative Research, appointed in 1934, has under consideration an appeal to some such organization as the Carnegie Foundation or the General Education Board for funds with which to carry on a thorough-going research into the contribution which speech might make to the various aims of institutions of higher learning. But the committee felt that the plan as presented might be taken as an effort to propagandize in favor of our own profession; and before submitting it to a foundation they felt that we should either re-vamp the plan or find out more about the willingness of foundations to consider projects of such a nature.

This does not, however, prevent teachers of speech from engaging in other efforts to evaluate the significance of their subject. As a matter of fact, some of our profession are actually already meeting problems of reorganization in their own institutions. Instructors in whose institutions no change has yet taken place may well use the same procedure in laying before their administrators the needs of their departments. The best argument for the existence or expansion of a department of speech is its ability to produce desirable educational results. With scientific honesty we should set ourselves the problem of trying to evaluate our work and its possibilities.

Each individual college will continue to have its own characteristic aims. No one can prescribe them except the governmental agencies which are entrusted with the supervision of education, or the people who subscribe funds for the maintenance of the institution. When an educational institution is set up, its founders decide what students shall be allowed to enter, and what kind of an education they shall be given. But there are many educational aims which may

be found in common with nearly all institutions. Almost every institution of higher learning expects its graduates to be able to use written English with some skill. Most institutions will not give a degree to students who are not morally upright. They also make some sort of a gesture toward health education, and feel an obligation to provide a wholesome social life. These aims are more or less characteristic of all education. If we were to narrow the consideration to teachers colleges, engineering schools, liberal arts colleges, women's colleges, or agricultural colleges we should find that each of these homogenous groups has great similarity of aims within its own group.

Scientific investigations are being conducted to discover what will be expected of adults in typical life situations. For example, Stephens College has been working for several years on a project to find out what college women should be taught. Three hundred women in different parts of the United States kept daily diaries of their activities and needs. It was found that the modern woman has much more need of training in speech than in written English. Consequently Stephens College now has a required course in speech.

A study was made of 250 clerical workers.[1] Each worker put down by five-minute intervals exactly what he did all day. It was found that these 250 workers did tasks which could be gathered under 454 different headings. Of these 454 items the following might possibly be touched in speech training:

Attend meetings, conventions, banquets, etc.
Give talks and lectures of various kinds
Use the telephone
Meet callers
Instruct new employees
Interview buyers
Get rid of cranks
Interview applicants
Dictate to dictaphone
Get information from library
Compile bibliographies
Select and invite speakers
Act as guide to visitors
Take part in employees' functions
Address a meeting of employees
Conference with employees
Organize clubs, welfare work, etc.

[1] Connor, W. K., and Jones, L. L., *A Scientific Study in Curriculum Making, 1929.*

If a speech course is to benefit prospective clerks, these are the activities for which students must be prepared. Anything else that is given them will prove useless professionally, and may be justified only on the grounds of cultural improvement. Moreover, we cannot wave the list aside with an impatient gesture and assume that any kind of speech training we choose to give will accomplish desirable results as far as the above list is concerned. We shall have to direct the subject matter of the course more or less specifically at the aim to be accomplished. And then, after we have done our work, we shall have to submit the students we have trained to a comparison with students who have not been trained, and thus arrive at a scientific evaluation of our work.

Not only speech, but every subject in the curriculum, will have to prove itself. Of course, we speech teachers hope and believe that an unprejudiced and scientific study will prove the efficacy of our work. But whether we are teaching in an engineering college, a divinity school or a liberal arts college, we should be eager to submit ourselves for examination along with all the other subjects that are being taught.

The time will come—in fact, we could begin at once—when the National Association of Teachers of Speech should take up the consideration of this problem with great thoroughness. But any activity of the association as a whole must be built largely upon the activity of individual departments. Every department, every teacher of speech may well set up some sort of a testing program. Then when his institution adopts a form of re-organization, or when an opportunity presents itself for an expansion of his department, he will be prepared with the facts.

Various departments and individuals will have to invent and improve testing devices, and attempt to use scientific methods to determine how they may adjust their course offerings to meet the needs of their students. It may then be possible for our national association to gather from these sources such authenticated conclusions and scientific procedures as will enable our profession to prove the value of its contribution to the educational program. This must certainly be done, and if it is possible to secure funds to carry out such a program, we should count ourselves very fortunate.

DONALD HAYWORTH
University of Akron

Standards of Pronunciation in New York City

Editor of the *Quarterly Journal of Speech:*

I am sorry that Mrs. Raubicheck and the committee are abashed at finding *Suggestions in Speech Improvement* reviewed in the Quarterly. Are not the methods of speech improvement of the largest school system in the country of interest to teachers of speech throughout the country? As Mrs. Raubicheck's main charge against my review is that it is misleading, it may be instructive to examine a few details. Far, for instance, from damning Miss Wood's *Jingle Book* with faint praise, I pointed out that, despite the British standard and the Tilly symbols, it was extremely useful. I might add that at least one three-year-old of my acquaintance has been thoroughly captivated by the jingles, thereby illustrating the excellence of the book's motivation which I mentioned in my review. Since Miss Wood emphasized neither the standard nor the symbols, and since she made no special effort to integrate them with the body of the book, I thought it at least possible that she was one of a number of New York teachers who don't think very highly of either the British standard or the Tilly symbols. Her "lip service" was admittedly suppositional, and I am glad to be set right about it.

If Mrs. Raubicheck's book is the only one with official sanction, it is the authors who are misleading, not the reviewer. Mrs. Raubicheck herself wrote the foreword to Miss Wood's book. *Graded Objectives* displays a list of three consultants, including Mrs. Raubicheck, and six endorsers; eight of these nine people are present or former officials of the New York school system. If this does not constitute official sanction, what does "official sanction" mean?

It is true that Professor Krapp mentions a standard which "is least likely to attract attention to itself as being peculiar to any class or locality"; it is also true, to the best of my recollection, that Krapp wisely refrained from indicating the nature of this standard. Granting, for the moment, that such a standard can be unearthed somewhere, it is a bit surprising to find Mrs. Raubicheck unearthing it in the guise of Eastern Standard pronunciation. Has the hub of the universe been enlarged to make room for New York? If not, it seems a bit strange to seek universality in the most narrowly restricted of the three main American dialects. As a matter of fact, there is nothing in Mrs. Raubicheck's book, aside from her equal recognition of the "broad a" and the "compromise a" in *ask*, to suggest that she intended Eastern Standard at all. On the contrary, she

quotes (p. 38) a sentence from Mrs. McLean's *Good American Speech* to the effect that in "standard English" *r* is pronounced only before vowels. Now it is my impression that Mrs. McLean's "standard English" is not Eastern Standard; I have, moreover, a vague recollection that the usage of educated New Yorkers in respect to *r* is not so beautifully simple as Mrs. Raubicheck makes out.

But even if Mrs. Raubicheck had made clear that she intended Eastern Standard, she has still defined the standard too narrowly. References to Krapp and to Gray and Wise are irrelevant, since these writers are descriptive where Mrs. Raubicheck is prescriptive, and since they allow for various educated pronunciations where Mrs. Raubicheck accepts only one, or, in the case of *ask*, the two less usual forms. Gray and Wise frankly state, moreover, that their Eastern Standard is based on eastern New England; does Mrs. Raubicheck mean to suggest that Park Avenue and Back Bay speak alike? Good speech in New York City is too varied to be confined within the narrow limits of Mrs. Raubicheck's dialect, and if she is willing not to quibble about the "broad a," the "short o," and the "inverted r," there might have been some indication of that willingness in her book.

It is unfortunate that General American sounds "provincial, not to say rural" to Mrs. Raubicheck's "cosmopolitan ear." Picture the surprise of the good people of Rochester, Cleveland, Minneapolis, Winnipeg, and San Francisco at hearing their speech described as rural. And wouldn't an expanse of territory stretching from Albany to Vancouver and San Diego make a rather generous-sized province? If General American is an inappropriate term, what term are we to substitute? Is the speech of eighty or ninety million people in two countries to be dismissed as a "regional dialect"? Does cosmopolitanism begin east of the Hudson?

By all means teach the boys and girls of New York City to speak good Eastern speech if that is their native dialect. But why discourage them from using a more widely accepted form if they happen to have acquired it without benefit of the Bureau of Speech Improvement? Above all, why try to keep them in ignorance of the very fact that millions of their fellow countrymen speak according to a different, but equally respectable, standard? Think of the disillusionment of the brave souls who penetrate the wilderness beyond the Jersey suburbs and fail to find the natives either sitting around the stove in the village store or shooting Indians.

C. K. THOMAS, *Cornell University*

NEW BOOKS

Arms and Munitions. University Debaters Help Book, Volume I. Pi Kappa Delta Series. Compiled and edited by JOSEPH H. BACCUS. General editor, EGBERT RAY NICHOLS. New York: Noble and Noble, 1935.

Heretofore, Noble and Noble have been content to report on the end-product of debating, and to leave the handbook field to the H. W. Wilson Company, and to such official groups as the N. U. E. A. The Nichols-Baccus venture is not only well-timed, but has given us a new high in debate help books. The attractive binding and format do not mislead the reader. Particularly striking inside sections of the volume are these: "Chronology of International Disarmament Movements," "Explanation of Contraband and Blockade," "What Modern Leaders Say About Arms." There is an excellent bibliography.

The law of supply and demand will probably operate against the success of the increasing number of debate aids now being marketed; however, there is little question in the mind of this reviewer that further offerings like this Help Book will make the series an essential part of the debater's kit. Such general usefulness should warn the publisher against limiting the Helps, even in name, to a single one of the numerous forensic societies!

L. S. JUDSON, *University of Illinois*

Chauncey Mitchell Depew—the Orator. By WILLARD HAYES YEAGER. Washington: The George Washington University Press, 1934; pp. 227.

Chauncey M. Depew can hardly be considered as one of America's greatest orators, but undoubtedly he was one of her most popular speakers. He was popular because he was witty and charming, with a gift for saying the gracious thing in simple and direct language. He was perhaps at his best as an after-dinner speaker because there his humor could have full sway, but he was also in great demand as a speaker at political rallies and on all varieties of special occasions.

There is no doubt that for half a century he was our best known after-dinner speaker.

In *Chauncey M. Depew—the Orator* Professor Yeager makes no attempt to present a biography of Mr. Depew or a critically definitive treatment of his oratory. His aim is merely to estimate those factors in the man's early life which made him a successful speaker. Thus he reviews only Mr. Depew's education in oratory, his early excursions into public speaking, and some of his views on the theory of speech making. The greater part of the book, 157 pages, is made up of Depew's hitherto unpublished speeches. There is no discussion of these other than the statement in connection with each one of the date and the occasion of delivery.

The author goes into considerable detail concerning those features of Depew's education which contributed to his training in oratory. His training at Yale provided superior preparation for the long career in public speaking which was to begin as soon as he left college. He was immediately drawn into politics and soon was in great demand as a speaker at political rallies.

This book traces Mr. Depew's career only to his appointment at the age of thirty-two as attorney for the New York and Harlem Railroad. He had already become widely known as a popular political and occasional speaker. He had yet sixty-two years to live and in that period he probably delivered more speeches than any other American speaker. His published speeches fill fourteen volumes and those which were never published number several hundred. A speaker of such wide experience should surely be able to give valuable advice to others. Chauncey Depew's views on speech-making as quoted in this book give the reader an insight into the reasons for the man's success. They can be read with profit by every student of public speaking.

The thirty-seven speeches included in this volume are by no means among Mr. Depew's best. This follows naturally from the fact that Professor Yeager chose from among those which had never before been published. They give a good indication, however, of the wide variety of occasions on which Depew spoke and of his easy and informal style. They show the wealth of illustrations and allusions, the flashing wit, and the seemingly inexhaustible fund of stories which were potent factors in the man's success as a speaker.

The author of this book has done well to direct attention to such an interesting personality as Chauncey Depew. Professor Yeager's

relationship to his subject peculiarly fits him for this study, for he holds the Chair of Public Speaking which Mrs. May Palmer Depew established several years ago at George Washington University in memory of her late husband. Thus this book becomes in a sense a further memorial to Mr. Depew's oratory.

CHARLES A. FRITZ, *New York University*

A Reference Guide to the Study of Public Opinion. By HARWOOD L. CHILDS. Princeton: Princeton University Press, 1934; pp. vi, 105; $2.

As a bibliography, Professor Childs' work would not bear comparison with the *Bibliography of Censorship and Propaganda* published by Kimball Young and R. D. Lawrence in 1928. It is a guide to the author's course in Public Opinion rather than an index to the literature available on the subject. As a guide it should be very useful, especially if there is an instructor to correct the errors of the text, to supply some of its omissions, and to furnish discriminating comment on the works listed.

A guide ought to be dependable. A guide, for example, ought not to list Don Seitz's *The Also-Rans* as by "D. C. Schell," nor Earle Looker's *The American Way* as by "Earle Tooker," nor E. W. Spaulding's excellent work on *New York in the Critical Period* under the heading "Opinion Management and the American Revolution" instead of in its proper section, "Opinion Management and the Adoption of the Constitution." Such misplacements in a bibliography are highly inconvenient.

Perhaps the compiler of a selective list should be almost immune to criticisms of his omissions, but that immunity seems stretched a bit when Beveridge's *Marshall* is not included in the studies of the adoption of the Constitution, and the Debates on the Constitution are mentioned neither in the references nor in the "Topics for Further Investigation."

Perhaps a guide ought also to discriminate between the more valuable and the less valuable. Professor Childs lists his references without comment, other than his brief preface to each section. While doubtless his privilege, this seems deplorable in a two-dollar book. If comments are to be omitted, mere inclusion in such a short and selective list ought to be a sign of substantial worth. What, then, is to be said for listing such works as John K. Winkler's *Wilson?* There

are popular books like *Washington Merry-Go-Round* that supply material impossible to gather from more reliably warranted studies; there are others that merely offer shoddy competition to authentic works. A guide might discriminate rather severely between the two.

Despite its faults, the *Reference Guide* should be a handy book to have around. Its general arrangement is good; it includes many useful references and some that might easily be missed without its help. The prefaces to the sections are concise and apt. Such a book probably should be revised as carefully, and nearly as often, as an automobile road map. If that were done, the addition of some words of recommendation or warning as to the stopping-places would be so much to the good.

V. E. SIMRELL, *Dartmouth College.*

Lilts for Fun. By M. E. DEWITT. Poughkeepsie: Vassar Co-operative Bookshop, 1934; pp. 18.

"Poetry, fun verses, jingles, and lilts are created for friendly people, for they are meant to be recited aloud to someone. . . . Any parent, nurse, teacher, older sister Janes and brother Johns may read aloud the Lilts in the ordinary way, that is, as soloists. . . . Now that choric speaking . . . has been revitalized it is acknowledged that we cannot start soon enough planning for our little people to take part with us in reading and reciting aloud. . . . In any case, whether we read them to or with others, the Lilts should be used for fun, the fun of sharing, for it is as an experiment in fun material that they are sent forth."

These excerpts from Miss DeWitt's prefatory note indicate the scope of her pamphlet. The lines of the lilts are marked for soloists, sides, and chorus, and the rhythms are emphasized by stress marks, bold-face type, and capitals. Four pages deal with intonation, voice and pronunciation, and general methodology.

C. K. THOMAS, *Cornell University.*

Intercollegiate Debates. Volume XV. Edited by EGBERT RAY NICHOLS. New York: Noble and Noble, 1934; pp. 422.

The fifteenth volume in this series, still called "The Year Book of College Debating," although information concerning coaches and debating associations no longer is given, contains debates on nine propo-

sitions: Labor Provisions of N.R.A.; Stabilization of the Dollar; Guarantee of Bank Deposits; A.A.A.; Democracy and Dictatorship; Hitlerism; Broadcasting; Naval Strength; Compulsory Automobile Insurance. The mightiest efforts of seventeen debating societies and several chairmen are recorded herein for posterity. Other vital statistics: Cambridge University is represented twice; eleven of sixteen American schools which contribute are Middle-Western; women participate in two debates; only one debate is recorded as having been judged, and that by an audience shift of opinion.

Concerning trends in debating during the year, the editor says in the Preface; ". . . the growth and importance of radio debating, the tremendous swing to tournament debating, and the tenacity with which the debate trip has been retained, continued during the past season." The most widely debated topics, he says, were the Pi Kappa Delta subject of Presidential Powers, and the N.I.R.A. Curiously enough, no debate on Presidential Powers is included, and the debate on N.I.R.A. is restricted to Labor Provisions of the Act. The editor explains that he did not select a debate on the Pi Kappa Delta question because it ". . . was so phrased that it was a blanket resolution or an omnibus measure and meant anything and everything under the sun an affirmative team chose to debate." If this rebuke to framers of ambiguous debate topics be well taken, let us hope it will be deeply felt. Nevertheless, it would be interesting to have a record of what happened in a debate on this most widely used question of the year. The volume is also deficient without a debate on the general issues of N.I.R.A. The editor explains that many schools were hesitant about using N.I.R.A. at the beginning of the season because co-operation rather than criticism was expected by the government. What! Are debaters stilling their voices when life, liberty, and individual initiative are threatened with destruction?

Two of the debates printed, the Cambridge-Stanford, and the Bates-Iowa discussions, are of special interest because they originally were available by radio to many sections of the country. It is noticeable that the Cambridge men, in their international radio debate, with time at a premium, talk tersely and to a point, whereas their colleagues in a meet with Detroit in this country carry on that gently humorous and slightly relevant banter we are accustomed to hear from our English visitors. The words of the Britishers look a little cold in type, and one wonders whether, were their accent less novel, their eloquence might not be less effective in our halls.

This series now includes so many schools that only a rash critic would maintain that the debates are not evidence for or against the value of college forensics. Friends will find abundant instances of well documented, accurate attack and defense. Foes may point with scorn to the American debater who takes Theodore Roosevelt and "prominent educators" to task for claiming that debating "obscures a judgment." This is not so, the debater demonstrates, because he and his colleague have debated both sides frequently. Or they may view with alarm the honorable gentlemen from Cambridge who plead for the installation of British broadcasting practices here, and then in a forum reveals, in response to a question as to what he *really* believes, that he thinks the system he advocated previously would not work because of graft. Some day a debater will make history by declaring during the course of his plea that the opposition has convinced him. Why must such confessions be left for cloak-rooms?

Various current practices are revealed in the debates of the year. Three of the debates were spoken specially for radio audiences, and others were broadcast incidentally. The practice of carrying discussions beyond the walls appears in other forms. The height of adjustability should have been reached at Ames, where Iowa State College and Minnesota argued the merits of the A.A.A. before a convention of farmers. The collection contains no record of revolutionary debating practices. The Direct Clash is recommended for practice debates, but (and it seems wisely so to me), not used as a specimen form in the volume. Nor are specimens of cross-examination style debates given this year. Those who are annoyed by the inclusion of radio debates and forum discussions can take heart at the persistence with which many old elements survive. The traditional approach, ". . . great pleasure . . . meet again . . . not the first . . . hope not the last . . . the question is . . . ," still reigns supreme. Opponents still are accused of being fallacious Utopians, but the crop of medical analogies is small. Only once do we hear that cocaine cannot cure a cancer. If one judges by syntax and trope there seems to be some spontaneity in the debates. Specimen: "Let us first delve into recent history so that we may get a true picture of the stage as it was set when Hitler took the reins."

In a collection of materials submitted by various directors, it is difficult to get uniformity in bibliography. Some of the bibliographies are unnecessarily brief, others extensive enough to include the *Republic* of Plato. The editor might contribute to ease in reference were he to standardize remarks introductory to each debate. A statement of pro-

position missing, or a date omitted, or even all necessary information given in various order, causes some confusion. It would help, too, to date the volumes.

These are small matters. As those of us who work year after year with college debaters turn to the annual record as preserved in *Intercollegiate Debates*, we shall have little trouble in finding what will make us say in one moment, "These are our triumphs," and in another, "These are our failures."

RICHARD MURPHY, *University of Pittsburgh*

Contest Debating. By HARRISON B. SUMMERS. The Reference Shelf, Vol. IX, No. 6. New York: H. W. Wilson Co., 1934; pp. 232.

Professor Summers has established himself, during the past ten years or so, as one of the most successful debate directors in the Middle West. As one might expect, therefore, his book is replete with practical suggestions, some of them adapted from previous books, many of them new, but all thoroughly tested and worthy of careful consideration. Sections XI through XVI, which deal with the preparation of actual debate speeches, are particularly good, and will be studied with profit not only by students but also by debate directors of all degrees of experience.

But when the author, in earlier chapters, discusses methods of argument, the reader gropes through varying densities of fog. Professor Summers has decided that he must have a new terminology; hence it becomes necessary to invent a special meaning for *instances* in order to separate it from *illustrations*. (Citing instances means building a generalization, and using illustrations means enploying analogies.) Deductive reasoning becomes *method of classification*; method of residues becomes *method of elimination*, and good old *reductio ad absurdum* becomes *carrying the idea further*. Evidently conscious of possible confusion, Professor Summers has added an appendix on "Logical Forms," in an attempt to show how his system is related to that of Foster.

Changes in terminology are only surface indications, however, of a confusion that goes deeper. Professor Summers not merely changes generalization into *citing instances*, but makes *instances* a form of "direct proof," correlative with *testimony*, *illustrations*, and *statistics*. His methods of "direct proof," therefore, include direct evidence by authority (*testimony*); two methods of argument, generalization and

analogy; and a form of general statement (*statistics*). Deductive argument is classed as "indirect proof."

This means, in theory, the elimination of inductive argument as a possible framework for a speech. Groups of specific instances, no matter how carefully chosen, can be used, he indicates, only as evidence to support a sub-point in the outline; and arguments from causal relation are relegated to obscurity, though "widely used," as not "particularly sound."

Happily, however, inductive argument sneaks back again as soon as the author leaves theory for practice; and by the time p. 85 is reached, one discovers this typical set of affirmative contentions:

1. Present conditions are unsatisfactory.
2. Government ownership of railways will make lower rates possible.
3. Government ownership of railways will result in improvement of service.
4. Taking over the railways would not injure the tax-payer.

Every statement obviously indicates an inductive argument, since the first must be developed by generalization and the other three by argument from cause to effect. The set of negative contentions beginning on the bottom of the same page contains one argument from effect to cause, two from cause to effect, and a fourth that might be either cause to effect or *classification*. The debater who uses this book, therefore, will probably not go very far astray, even though he may not have a clear idea at times of precisely what path he is following. Professor Summers would be among the first, I am sure, to suggest a careful study of a recognized textbook on argumentation as a supplement to the use of his own work.

And surely the general attitude of the book toward debating is commendable. *Contest debating*, as defined here, is broad enough to include no-decision discussions, and *strategy* has lost most of its fangs. Although debating is still a game, it is a polite game, played by gentlemen with at least one eye constantly on the audience. Our English cousins may be horrified by seeing contest debating traced back to the Oxford Union "more than a hundred years ago," but doubtless few of them will read the book, anyhow, and the statement may have a beneficial effect on American undergraduates. The important point is that intelligent, fair-minded, courageous discussion, whether traced to Oxford or to Athens, is needed in this country today as never before, and that any book is valuable which promotes it. This book does.

RAYMOND F. HOWES, *Washington University*

An Introduction to the Art of Speech. By DWIGHT EVERETT WATKINS. New York: W. W. Norton Company, 1934; pp. xi, 452; $2.75.

Combining under one cover instruction in public speaking and oral interpretation of literature, this work seems designed as a textbook for college students. It is separated into four divisions, the first of which, consisting of two introductory chapters, deals with "The Art of Speech—A General Survey" and "Fundamental Processes." The second of these chapters is, in the reviewer's opinion, one of the most ably treated and generally useful analyses on the origin, function, and processes in the speaking and reading situation to be found in a speech text. The situations treated run from infant experience to special speech training and correction of defects in the school, and to the specific preparation of the definite reading or speech for an audience.

Part One, the second division, in seven chapters, is an analysis of breathing, voice production, hearing, pronunciation, vocal quality, force, pitch, time, and action. While the author's treatment of pronunciation may seem inadequate and his views on phonetics somewhat contradictory and not entirely acceptable, in the main the reviewer has failed to find anywhere a more careful, thorough, comprehensive, complete, and interesting survey of these subjects, one at the same time not arbitrary or dogmatic, and throughout composed in a way that should awaken a student to a sense of his speech-delivery needs. The content is not so much new material as old principles more fully discussed and better inter-related with the entire speaking process than in the average text dealing with these subjects.

The prescription of the author is that the explanatory material on voice and action of *Part One* be studied as a whole prior to any assignments in reading or speaking. When *Part Two* and *Part Three* are later studied, they are to be applied in relation to *Part One*.

Part Two, Practice in Speaking, an audience-psychology approach to composition, is in many respects a more than ordinarily useful treatment of public speaking. Some chapters deserve particular mention. Chapter XIV, "Psychological Helps in the Speech Situation," an application to public speaking of the principles of learning of Chapter II, "Fundamental Processes," is an excellent piece of work, original in application, remotivating and practicalizing general principles of public speaking theory by relating them to the psychological laws of learning. It is made useful to the student, not only in relation to his preparation, but also in his approach to audiences. It might seem

that the psychological principles of interest here discussed should in this chapter or elsewhere be more fully treated.

Chapter XV, "The Parts of Speech," is a well illustrated, interesting, exhaustive discussion of the introduction, discussion, and conclusion, taking into account different audience situations. Chapter XVI, "Impressiveness in Thought and Rhetorical Style," is a very worthy discussion, fully illustrated, of rhetorical principles. "Speech Purposes," Chapter XI, though copiously illustrated, seems less complete in theory than the other chapters of this section; and Chapter XII, "The Details of a Speech," though carefully treated, seems less fully integrated into the work as a whole than other chapters of this division.

Part Three, Practice in Literary Interpretation, seven chapters, consists largely of selections for oral reading, plus questions which relate oral reading to the principles of *Part One*. For example, "Breathing in Literary Interpretation" relates to the earlier chapter, "Breathing, Voice Production and Hearing"; and twenty-three questions, having to do with the application of breathing and pronunciation to reading, must be considered in the preparation of the reading. Listed in the seven chapters are some one hundred and sixty questions the student should ask himself about fundamental processes, breathing, voice, force, pitch, time, and action as a check on his interpretation. Surely, few students of oral reading will have faults related to all the hundred and sixty questions; and for them to have to answer all the questions might seem at best pretty mechanical and at worst utterly confusing. Each student will doubtless have many faults and inadequacies; but to attempt to cure these by requiring him to learn all the faults and their cures, in order that he can check up on himself with the whole one hundred and sixty, seems somewhat akin in economy to an attempt to cure the patient suffering from indigestion by having him learn all the symptoms of diseases and the details of anatomy.

It might seem that more principles of direct application, exercises, and guidance for students are needed to bridge the gap between the excellent analysis of this work and the student learning to speak or read. The author has in his *Preface* anticipated this criticism and answers it with the following statement:

> Technical exercises in voice and action may at first be missed. Such exercises have been omitted in accordance with the educational principle that we learn to do exactly what we do, and nothing else. Commonly, students who can execute technical exercises with great skill fail utterly in transferring the technical skill thus used in the exercises to their actual speaking and reading . . . . students should make all their speeches and literary interpreta-

tions real and vital exercises, executing them with all the care and skill at their command.

Perhaps it is the author's application of this theory which causes the work apparently to lack in spots not so much exercises as a pointing toward what the student should see as a unified goal, with the various steps and stages of accomplishment evident to him all the way. This lack is particularly felt in the relation of *Part Three* to *Part One*. Presumably, there ought to be something to oral interpretation quite aside from fundamental processes, voice production, pronunciation, quality, pitch, force, and time, something which should at least correlate the host of technical details with the act of interpreting.

The book exemplifies scholarship, is well written and interesting, and should prove a useful text in courses which combine public speaking and oral reading.

ARLEIGH B. WILLIAMSON, *New York University*

The Bases of Speech. By GILES WILKESON GRAY AND CLAUDE MERTON WISE, New York: Harper & Brothers, 1934; pp. XI, 439.

The Bases of Speech is a text written in pursuance of the conception that material basic to all the phases of speech is comprised within the following classification: (1) The Social Basis; (2) The Physical Basis; (3) The Physiological Basis; (4) The Phonetic Basis; (5) The Neurological Basis; (6) The Psychological Basis; (7) The Genetic Basis; (8) The Linguistic Basis.

Proceeding from this analysis, the authors have achieved a volume that is the most comprehensive assembly of significant technical speech data now existing. They have done the work in most thoroughgoing fashion. They have considered not only earlier theories and experimentation but also the latest research. They have performed a service for teachers in this field that is exceedingly valuable. Many will find in this book a fruitful education in fields in which they themselves are not expert.

The Bases of Speech is also a book that will raise many a question, since the authors submit it as a textbook for the fundamental course. For this reason, I think it important to quote in full the articles of belief set forth in the preface:

1. We believe that a textbook for the fundamental speech course should not seek to be an inclusive survey of several or all of the various phases of speech study. Specifically, it should not attempt to be a textbook in general

public speaking, debate, drama, interpretation, speech correction, etc. To undertake such inclusiveness is to traffic in smatterings, to court the risk of superficiality and futile diffusiveness, and to take away the edge of the student's appetite for specialized speech studies in their proper completeness and at the proper time. Such a text would not be a basic text, by reason of the inadequate consideration, or the complete omission, of really basic material.

2. We believe, furthermore, that the textbook for the fundamental speech course should not be principally a treatment of some one or more of these studies, as, for example, public speaking. The consequent inadequate treatment or complete omission of really basic studies would place the book in the likeness of a house with a poor foundation, or none at all.

3. We believe that the fundamental textbook should, avoiding both the practices outlined above, address itself to that material which is basic to *all* the phases of speech enumerated in No. 1. We tentatively conceive this basic material to be comprehended under the titles used for our chapter headings, viz., the Social, Physical, Physiological, Phonetic, Neurological, Psychological, Genetic, and Linguistic Bases of Speech.

On this profession of faith Professors Gray and Wise have written their text, adhering to it completely and consistently. In the discussion of the use of practical material, they say that "the intention of this book is not to encroach in practice work upon the proper sphere of technical public speaking, debating, interpretation, or drama." It is intended that the student of this text shall not in a later course come to the study of any one of these disciplines and find that he is repeating a study of theories or methods to which he has already been introduced.

As a result of the faith that moves the authors and the works that follow, there doubtless are surprises in store for many teachers when they make the acquaintance of this book. The first chapter will supply some of these surprises. For instance, in this presentation of "The Social Basis," study of the voice, beginning on page 5, occupies 31 of the 56 pages. This treatment of voice concerns itself with "Agreeable Voice Quality," "Optimum Pitch," "Flexibility," "Adequate Projection," "Articulation and Enunciation," "Correct Pronunciation," etc. There are 15 pages of exercises resourcefully selected for practice work on these characteristics. The only four exercises that have a different purpose suggest "talks." Again, use of the phonetic symbols makes its appearance on page 9 in a discussion of "Muffled Tones." There can be no doubt that the authors mean it when they assert that phonetics is fundamental and indispensable. Furthermore, consideration of speech as a means of social control through the communication of ideas organized for definite purposes appears at the end of the chap-

ter, in about 14 pages. Even here the authors are quite successful in avoiding encroachment on what might be considered to be the "sphere of technical public speaking." In the very brief discussion of "Directness—Communicativeness," the organization of ideas is safely disposed of.

It might be noted here parenthetically, that a distinctive feature of this text is the extensive use of choral reading. There are many passages with marginal directions for the assignment of parts, some to the men, some to the women, some to individuals. There is excellent choice of material for this purpose; and where cutting and arrangement have taken place, the work has been done skillfully.

The completeness with which this text avoids encroachment on the field of teaching that concerns itself with the student's thinking and the communication of that thinking for purposes of social control—to this many a teacher will certainly take exception.

Another major question as to that which the text attempts to accomplish, relates to the inclusiveness of the technical detail. A more accurate job, I suspect, can not be done. "The Phonetic Basis" is treated with the authority Professor Wise has demonstrated before, and he has added to the breadth of the chapter he wrote for the O'Neill and Weaver book. The discussion of "The Neurological Basis" goes with exact detail into discussion of the central nervous system, the autonomic system, and the endocrine system. There is excellent exposition, liberal use of technical terminology, and many well printed diagrams and illustrations. The Chapter on "The Linguistic Basis" deals with the parentage of languages, the relations of languages to each other, the changes that take place in languages, the "laws" of sound change, and the kinds of languages, even to the Hittite and the Finno-Ugrian; it deals with the varieties of language change, from voicing, unvoicing and unstressing, to umlaut, apocope, and hyperbole; it gives a diagram of the "ultimate" parentage of language. If we teachers knew the contents of these chapters, most of us doubtless wou'd feel that we had more than a speaking acquaintance with these bases.

The authors offer this text as one that may be covered in a one-semester course, though they prefer that two semesters be given to it. Also they possess the hope, common to all of us, that the fundamental course may generally be found in the freshman year. Just what, one wonders, do the authors expect a freshman to carry with him from this course? A better voice and a cleaner speech, no doubt. Excellent!

But how much of this technical information will contribute to this result? And how much is he to store up in his memory? This treatment of the subject of speech carefully avoids certain spheres of undergraduate instruction. Some teachers will surely feel that it invades certain spheres of graduate study.

This book may prove to be most serviceable as a text for students who follow it with other courses in the speech field, especially for those who train for teaching speech. How thoroughly, I wonder, can it be made to command the interest of most other students, or serve most successfully the requirements of that large group whose instruction is limited to one or two semesters? What would happen to an elective course taken, for instance, by young men practically all of whom expect to become business men, lawyers, or doctors? If it could be taught so they would elect a second year of work, I suspect the result would be admirable. The authors certainly have the knowledge and probably the enthusiasm for this approach as well as the teaching skill necessary to get this result. The number of others who can do so may increase. Perhaps such an increase would be a gain to the profession.

At any rate, the authors have definitely taken issue with a conception of the objectives for a fundamental course which quite generally prevails. They are constant and scholarly in the way they maintain this position. The book they have produced should do the profession infinite good, however many questions it may provoke, or however many teachers there may be who are not ready to concede the soundness of this approach for beginning students or the practicability of carrying it out.

HOWARD S. WOODWARD, *Western Reserve University*

The Art of Interpretative Speech. Principles and Practice of Effective Reading. By CHARLES H. WOOLBERT AND SEVERINA E. NELSON. New York: F. S. Crofts & Co., 1934; pp. 541.

This is a complete revision by Miss Nelson of the well known work on interpretation whose authorship she shared with the late Professor Woolbert. A foreword has been supplied by Professor A. T. Weaver, the text has been completely re-written, materials have been rearranged and expanded, and about a hundred pages of new selections for practice has been added. The result is a better book, from every standpoint.

In the process of revision the exuberant style of the first edition has been curbed, but not too much, perhaps not enough. There are still

assertions that things are "everlastingly and inevitably" so, still a good deal of the dogmatism and forced enthusiasm typical of lyceum lectures. But there is nevertheless a real gain in dignity and restraint, and it has been achieved without sacrifice of the liveliness that was so notable a quality of the original edition.

The conception of interpretation set forth in the original edition has been maintained substantially without change. The task of interpretation is "to induce someone else to accept my own private opinion or notion concerning the printed page." The extreme individualism of this conception of interpretation probably receives more emphasis than the authors really intended, for they must have felt in common with other teachers in this field that we need to urge upon our students the findings and the methods of the science of literary criticism in order that they may get from a given work of literature not *a* meaning, but *the* meaning. Here indeed the student is urged to find the author's meaning, but far more often he is told, "There is no one meaning which the page compels us to take." "Symbols mean what I make them mean. There is no absolute meaning." "What everyone does alike is not interpretation." "The poetry is in the interpreter—or else there is none."

The most extensive revisions and additions have been made in "Part II, The Technique of Expression," where the text and exercises have been carefully reworked and amplified in the interest of greater clarity, coherence, and definiteness. A new chapter, "The Time Factor in Interpretation," has been created out of the one formerly titled "The Rhythm of Interpretation." But, as might have been foreseen, the attempt to separate rhythm from time is not a very happy one. Rhythm becomes inextricably confused with cadence, tempo, graduation, pattern, and physical co-ordination, and remains, as the authors seem to intend, a very deep mystery. A thorough treatment is lacking of the psychology and function of rhythm, especially in poetry.

Very few of the selections for practice in the earlier edition have been dropped, and there are many new ones, chosen with catholicity of taste, from all kinds of literature. No material additions have been made from standard poetry, except Shakespeare, but there is a wealth of new selections from modern prose, poetry, and drama, and their quality is quite uniformly high. Again no attempt is made to classify the material; prose and poetry, oratory and narration, lyric and drama are mingled, presumably on the assumption that they all require the same techniques.

There is every reason to believe that the many users of this ap-

proach to the study of interpretation will be well pleased with Miss Nelson's revision.

W. M. PARRISH, *University of Pittsburgh*

OTHER BOOKS RECEIVED

The following books and pamphlets have been received by the book review editor, but seem too far removed from the ordinary scope of this section to demand extended comment:

Five Elizabethan Comedies, edited by A. K. McIlwraith, and *Five Pre-Shakespearean Comedies* edited by Frederick S. Boas; New York, the Oxford University Press, 1934; 80 cents per volume. The former contains Lyly's "Campaspe," Peele's "Old Wives' Tale," Greene's "Friar Bacon and Friar Bungay," Dekker's "Shoemaker's Holiday," and the anonymous "Merry Devil of Edmonton." The latter contains Medwall's "Fulgens and Lucrece," Heywood's "The Four PP," Udall's "Ralph Roister Doister," Gascoigne's "Supposes," and "Gammer Gurton's Needle."

Tidings of Joy, a Christmas play in one act by Elizabeth McFadden; New York, Samuel French, 1933. The plot concerns a young American couple threatened with eviction on Christmas Eve, who are rescued, together with their baby, by children from the neighboring church.

The Role of the Virgin Mary in the Coventry, York, Chester and Towneley Cycles, by Brother Cornelius Luke; Washington, D.C.: The Catholic University of America, 1933.

IN THE PERIODICALS

FRÖSCHELS, EMIL., HAJEK, L., AND WEISS, D.: "Untersuchungsmethoden der Stimme und Sprache." *Handb. biol. Arbmeth.*, 1933, Abt. 5, Teil 7, 1383, 1540.

This article contains a description of all the reliable methods used in the measurement of phenomena occurring in singing and speaking. The authors make a distinction between the methods used in research and in demonstration. Theoretical phonetics is widely different from applied phonetics. "The finer the registration apparatus, the more variation may be noted, and the less susceptible to classification."

GEMELLI, A., AND PASTORI, G.: "Quelques recherches sur la nature des voyelles." *Rev. Acoustique*, 1933, Vol. 2, 169–189.

The oscillographic structure of the vowel depends not only on its harmonic character but also on the relative phases. Variations from the normal voice tone tend to make the curve more nearly sinusoidal.

SMIRNOVA, A. M.: "Pathogenesis, Treatment and Prophylaxis of Stuttering in Children of School Age." *Sovetsk. Neuropatol.* 1934, Vol. 3, No. 7, 74-94.

TIFFIN, JOSEPH: "Simultaneous Records of Eye Movements and the Voice in Oral Reading." *Science*, 1934, Vol. 80, 430–431.

Using an oscillograph for recording the sound waves, and a special camera for recording eye movements, records of both are obtained. The relation of eye movements to reading can be studied. Efficient readers look farther ahead, thus enabling them to get the meaning from the material, observe punctuation marks and note the qualifying ideas. They obtain a good idea of the meaning of the sentence before they speak it. The poor reader, on the other hand, speaks the word as soon as he sees it, and frequently becomes confused because he is unable to grasp the meaning of the phrase or sentence in its entirety.

G. W. G.

HEFFERNAN, HELEN: "The Panel Technique of Group Discussions." *California Journal of Elementary Education*, III, No. 2, November 1934, 74–82.

BENNETT, H.: "The Wit's Progress—A Study in the Life of Cicero." *The Classical Journal*, XXX, No. 4, January 1935, 193–202.

WHICKER, H. W.: "Our Palingenesis of Talk." *The North American Review*, 239, No. 1, January 1935, 37–42.

VILLARD, OSWALD GARRISON: "Wendell Phillips, After Fifty Years." *The American Mercury*, XXXIV, No. 133, January 1935, 93–99.

Because it eliminates formal speech-making with the consequent domination of the meeting by the speaker or speakers, the author approves of the panel technique of group discussion. The panel technique—the essentials of which are a social problem, a group of interested persons, a panel of from four to eight persons, and a skilled chairman—may be used in re-vitalizing community education, in stimulating progressional meetings, and in promoting classroom interest. "The discussion panel technique is a device in social engineering. It provides an opportunity to face the problems that confront individuals and groups and to arrive at mutually acceptable solutions." An annotated bibliography of works on this technique accompanies the article.

Mr. Bennett's informal little essay might well be read in connection with the sections on jesting in the *De Oratore*. He observes that Cicero's humor, derived largely from the law courts, was often "personal and abusive," but nevertheless effective.

Mr. Whicker believes that whereas prior to the World War free discussion was everywhere to be found in American circles, the period of the conflict was definitely characterized by stifled expression and conformity of thought. But a new birth of speech freedom is here, he observes.

> It is more to the point that man is now hard at his first business in life, the business of talk, and that our present palingenesis of talk is reforesting the national watershed of ideas from which new streams of living are flowing toward their confluence in the broader, deeper current of an unfolding age, one that only ultimate conduct itself can adequately define and trace.

Mr. Villard, in an article of interest and value to students of American oratory, reaffirms our faith in Phillips' sincerity and devotion to the cause of social reform. Rather than seek for a reform cause, as some have indicated, Phillips entered upon his work, at great personal cost and risk, only after conditions became so intolerable as to demand his services.

LESTER THONSSEN, *College of the City of New York*

VOELKER, CHARLES H.: "a. f. sɪmbəlz ɪn eləmɛntrɪ fonɛtɪk klæsəz æt ðɪɑɪə steɪt junəvrsətɪ. *Le Maître Phonétique*, 3rd Series, No. 48, Octobre–Décembre, 1934, 107.

The selection of the minimum number of phonetic symbols which were used in elementary classes comprised the following eleven vowels and twenty-three consonants: i, ɪ, e, ɛ, æ, ɑ, ɔ, o, ʊ, u, ə, and r, l, h, j, ʍ, w, f, v, θ, ð, s, z, ʃ, ʒ, p, b, m, t, d, n, k, g, ŋ. It was found that the students could most readily master this number, and that they served satisfactorily as a basis for the learning of additional symbols for the finer transcriptions of advanced study. The selection proved to be considerably valuable in Americanization phonetics classes.

VOELKER, CHARLES H.; *Therapeutic Technic for Staphylolalia*, Archives of Otolaryngology, Vol. 21, January 1935, 94–96.

This paper details procedures for the diagnostic rehabilitation of paralalia microstaphyla, the deuteropathic speech disturbance arising from shortness of the soft palate. The comprehensiveness of its application may be restricted somewhat by the age of the patient, in a like manner to Doctor Kenyon's psycho-muscular control technic in the treatment of spasmophemia.

The Billboard Index of the New York Legitimate Stage. Season 1933–1934, Billboard Publishing Company, Cincinnati, Ohio.

This index is issued annually by the publishers of The Billboard. It contains a chronological list of all plays produced during the season 1933-1934, with brief synopses of plots, names of actors and roles, length of run, etc. There are lists of actors, directors, scene designers, charts demonstrating the outstanding successes, statistics on attendance, all the material that the student of the contemporary theater might find interesting. Editorials, rather melancholy in spirit, survey the past season and make predictions as to the future of the legitimate theater in America.

L. E.

CONTEMPORARY SPEECHES

[Speeches reviewed are available in full text either in special sources as noted or in the newspapers.]

THE CAMPAIGN SPEECHES OF UPTON SINCLAIR

When Upton Sinclair made his pilgrimage to the White House immediately after his nomination for Governor of California on the Democratic ticket, he received an invitation from the National Broadcasting Company to address the people of the nation. Mr. Sinclair arrived at the New York Studio a few minutes *after* he had been scheduled to commence, and the officials were aghast to discover that he had no manuscript prepared! They did not know that Mr. Sinclair has always been accustomed to speaking extemporaneously and without notes. Only after insistent demands upon the part of the California broadcasting stations, did Sinclair forward manuscripts for his subsequent radio addresses. Aside from these manuscripts, there are no original copies of the Epic planner's campaign speeches delivered preceding the November election.

There are, however, some reasonable explanations for Mr. Sinclair's failure to prepare for specific speaking engagements. In the first place, for a period of over thirty years he has been a student of economic ills and social planning, and has written voluminously on these subjects. Secondly, he prepared a campaign booklet, entitled, "I, Governor of California, and How I Ended Poverty," which served as a basis for his speeches until he was nominated. After his nomination, he published "Immediate Epic," "The Lie Factory Starts," and "Epic Answers," where the ideas of his subsequent speeches may be found.

While newspapers were glad to print the entire speeches of the rival candidates, the only paper which would record a complete report of a Sinclair speech was his own "Epic News." Many newspapers would base an editorial on a stray sentence, or an ambiguous statement of the Epic candidate, and Sinclair found it impossible to correct the false impressions that began to develop.

On December 13, 1933, Upton Sinclair, with a satchel of booklets, arrived at Stanford University. He addressed a large audience of people who were antagonized, amused, and occasionally impressed. He

began his speech by questioning the value of a college education. He then jumped to the problem of taking care of the unemployed in California. Then the former Socialist justified his conversion to the Democratic Party.

"It happens that I am a Democrat by the same right that makes us Americans either Democrats or Republicans—I was born one. My father, an old-fashioned gentleman from Virginia, would have considered himself degraded if he had so much as thought of voting the Republican ticket. My grandfather, Captain Arthur Sinclair, commander of a U. S. naval vessel which helped to open Japan to the Western world, was a Democrat. My great-grandfather, Commodore Arthur Sinclair, commander of the "Congress," the first frigate built by this nation, was a Democrat."

Mr. Sinclair then stated the essence of his plan which is as follows:

THE EPIC PLAN

1. A legislative enactment for the establishment of State land colonies, whereby the unemployed may become self-sustained and cease to be a burden upon the taxpayers. A public body, the California Authority for Land (the CAL) will take the idle land, and land sold for taxes and at foreclosure sales, and erect dormitories, kitchens, cafeterias, and rooms for social purposes, and cultivate the soil using modern machinery under the guidance of experts.

2. A public body entitled the California Authority for Production (the CAP), will be authorized to acquire factories and production plants whereby the unemployed may produce the basic necessities required for themselves and for the land colonies, and to operate these factories and house and feed and care for the workers. CAL and CAP will maintain a distribution system for the exchange of each other's products. The industries will include laundries, bakeries, canneries, clothing and shoe factories, cement-plants, brick-yards, lumber-yards, thus constituting a complete industrial system, a new and self-sustaining world for those whom our present system can no longer employ.

3. A public body entitled the California Authority for Money (the CAM) will handle the financing of CAL and CAP. This body will issue scrip to be paid to the workers and used in the exchanging of products within the system. It will also issue bonds to cover the purchase of land and factories, the erection of buildings and the purchase of machinery.

After presenting the main ideas in his program, the speaker enter-

tained questions from the floor for almost an hour. It is his habit to recognize everyone and to answer all questions, no matter how irrelevant some of them may be.

The well known author speaks in an even, bland tone. His very sincere manner is relieved now and then by a sarcastic twist that will bring laughs from the far corners of the room. A typical example:

"We were promised two chickens in every pot, and two cars in every garage. Now we're doing well [Note: I understood him to say "good" rather than "well"] if we can find two chickens in a garage."

While one admires his ready flow of words, one finds his extemporaneous style a series of disconnected statements. Many of these loose statements were taken from their context, and used as campaign weapons against the Democratic nominee. The last two months of the campaign found him on the defensive. Often he could not remember that he had made the statements which his opponents declared he had made. The papers claimed he told the Women's Club in San Francisco that President Roosevelt would give him an official endorsement. Just what he had said he could not recall.

Using his booklet, "The Lie Factory Starts," as a basis, he travelled up and down the state denying that he was an agent of Moscow, an atheist, and a millionaire.

The Planner was not allowed to speak over some of the larger radio stations, and no newspaper would print complete reports of his speeches. During the last few weeks of his campaign, his speaking was more erratic than ever; he would jump from the Red Menace to Epic Planning, and then discuss his attitude towards Christianity before attacking Merriam.

Sinclair was undoubtedly an opportunist. He had a definite program which caught the imagination of thousands. If he had been more careful in his statements, his opponents would have had a more difficult time defeating him. It was not his sheer ability as an orator that caused people to pay in order that they might hear him speak; it was the desire to support a plan which they believed was for the good of the common man. People admire Sinclair for his childlike trust in plans and people. He has still to learn, however, that any man running for an important political position must prepare his public utterances with great care.

LEE CHAPIN, *Standford University*

FRANKLIN D. ROOSEVELT: RADIO ADDRESS TO THE N. Y. HERALD-TRIBUNE CONFERENCE ON CURRENT PROBLEMS (q.v.) September 27, 1934.

A simple speech of greeting but with at least two points of significance: (1) the strategy of emasculating rumors about the Administration in the course of illustrating a gracious compliment to public intelligence, and (2) the assertion that the "greatest achievement of the past two years" has been the greater interest in and understanding of current problems, an achievement neither administrative nor legislative, but rhetorical.

FRANKLIN D. ROOSEVELT: RADIO ADDRESS ON CAPITAL-LABOR RELATIONS, September 30, 1934.

President Roosevelt not only conserves public interest in his "fireside talks" by spacing them carefully; he also calls attention to the spacing lest anyone err, or lead others to err, in thinking the talks too frequent to be important. He begins his speech: "Three months have passed since I talked with you . . . Tonight I continue that report."

"Report" is the right word for the purpose. It sets the prevailing tone of exposition, of above-the-battle review and judgment of events.

His use of "ancient witnesses" in support of his own views is nicely adapted to the same purpose. Only ancient witnesses are used: Benjamin Franklin, Lincoln, Theodore Roosevelt and Wilson coupled in bi-partisan balance, Chief Justice White, and Elder Statesman Root. No contemporaries, who might be questioned as special pleaders, are chosen to testify.

The argument carefully maintains the balance of conflicting interests. Capital and labor take turns at getting both concession and rebuke. This characteristic method of making headway is so reminiscent of Mr. Roosevelt's sailing experience (cf., e.g., Lippmann's *Today and Tomorrow* article of February 14) that "tactics" applied to it sounds like a pun.

The climactic rebuttal of those critics who cite England's example against the New Deal might be described from different points of view as "antagonizing the audience," as "making the audience face the truth," or as stimulating the fervor of supporters by the stern chastisement of opponents. "Undoubtedly the weakest passage" in the speech, said the antagonized, or chastised, *Herald-Tribune*.

FRANKLIN D. ROOSEVELT'S SPEECH TO THE AMERICAN BANKERS ASSOCIATION, Washington, October 24, 1934.

Given a special audience with special interests and with an inclination to assert those interests against Administration policies, President Roosevelt can be as forthright and uncompromising as anyone could ask, whether that audience be the American Legion (as in October 1933) or the American Bankers Association. His method is primarily to divide the opposing group and to unite the entire community in his own support. He observes a "striking lack of unanimity" among the bankers and then asserts his own function "to find among many discordant elements that unity of purpose that is best for the nation as a whole." If there is conflict, "Government by the necessity of things must be the judge of the conflicting interests."

Personal as well as official authority is asserted with the statement that it was "as a result of my appeal" that "the people responded by restoring their confidence in the banks." The bankers in the end are warmly invited to join the "All-American team" of "forces intent upon recovery." But there is to be no mistake; it is "those in your government who are leading it."

DONALD RICHBERG: SPEECH TO THE CHICAGO ROTARY CLUB, October 9, 1934. Broadcast by NBC. (*Vital Speeches of the Day* 1:54-60).

The Number Two administrator of the New Deal is also its Number Two spokesman. Similarity of technique marks his discharge of the two functions: Co-ordinating, placating, smoothing and adjusting, but dealing firmly with opposition and keeping a steady sense of direction. His special assignment of past months has been to use persuasion on those business groups whose co-operation has been needed in the recovery program.

From the modest humor of the exordium, expressing pleasure at speaking in his home town, whose "ever-vigilant newspapers would undeceive" any strangers inclined to think well of him, to the peroration devoted to "American traditions and ideals," this speech is an animated exhibit of persuasive methods. A few of them: (1) the abjuring of any "effort to employ the art of political speech-making," (2) the sustained identification of Administration policies with the fixed beliefs of the audience, with denunciations of dictatorship, socialism, and monopolies; (3) the disarming comparison of the alleged "alphabetical bureaucracy" of the New Deal with "A. T. & T.,

G. E., or G. M., or B. & O., or C. & O., or other 'alphabetical' organizations of big business," and (4) fairness and generous concession throughout, balanced by emphatic insistence upon fundamentals.

DONALD R. RICHBERG: SPEECH TO THE NATIONAL ASSOCIATION OF MANUFACTURERS, New York, December 5, 1934. (*Vital Speeches* 1:168-172).

To be known to posterity as the "Damn the torpedoes! Go ahead!" speech.

The rhetorical methods are much the same as in the Chicago Rotary speech, with two conspicuous variations: (1) the direct clash with statements recently issued by the Association's own board of directors, and (2) an amusing use of the opposition's weapons in a passage denouncing an unnamed college-professor for "the absence of accurate information within that ivory tower where the professor reviews and scorns the work of the Administration." "It is pitiful," says Mr. Richberg, "that experienced business men should expose themselves to such mental poisoning." An anthology is waiting to be collected of instances of "college-professor" used as an epithet on both sides of the New Deal's controversy.

Twice in two weeks (November 22 and December 6) the Republican N. Y. *Herald-Tribune* gave Mr. Richberg's speeches first place on the front page. Washington's *Farewell Address* went on inside pages in its day, but Mr. Richberg's speech to the Associated Grocery Manufacturers was headlined in the best of all possible places. Is this a sign of contemporary over-emphasis upon oratory and the self-relegation of the press to an auxiliary position?

THE OPPOSITION

OGDEN MILLS: SPEECH TO THE INDIANAPOLIS CHAMBER OF COMMERCE, October 25, 1934. (*Vital Speeches* 1:103-107 under the title "Recovery or Bust")

The Opposition has not yet produced its masterpiece, but Mr. Mills has been steadily qualifying, ever since the campaign of '32, as its highly competent if uninspired rhetorical champion.

This speech, a review of the Roosevelt policies, is essentially forensic. But it is an opening address to the jury rather than a summation. Like a good prosecutor, he outlines his case, but his argument is a coherent, plausible organization of charges and lines of proof rather than a review of specific evidence. The judicial process then skips directly to the finding of a verdict. Proper instructions

would be that the standard of proof under the circumstances should be a preponderance of the evidence rather than conviction beyond a reasonable doubt. But factors perhaps more important in determining the verdict would be (1) the previous opinions which are no bar to service on this sort of jury, and (2) such bits of virtuosity as these:

"It is just as if a doctor, called in to treat a patient who has just overcome the crisis of pneumonia . . . should begin by inoculating him against colds through the use of serums that further upset him."

"There is the fallacy . . . of attempting to cure want in the midst of plenty by doing away with the plenty."

"Granted that no one ever shot Santa Claus, is there any reason why the entire adult population should take to believing in him?"

Other noteworthy speeches of the Opposition:

JAMES A. REED ON THE CONSTITUTION, Chicago, September 17, 1934, Broadcast by CBS. (*Vital Speeches* I:6-11).

SENATOR WILLIAM E. BORAH ON THE REORGANIZATION OF THE REPUBLICAN PARTY, New York, December 14, 1934. (*Vital Speeches* I:199-202).

UNOFFICIAL SPOKESMEN

N. Y. HERALD-TRIBUNE CONFERENCE ON CURRENT PROBLEMS, September 26-27, 1934. Speeches published in a paper-bound volume by the *Herald-Tribune*, pp. 294. $1.

Though the Greeks had a word for it, such a symposium as this is a rather new thing: a congregation of "best minds" speaking disinterestedly, but in most instances with some ultimate persuasive purpose, on subjects of timely or timeless interest, to a select group thought of as transmitters of opinion and not the final audience. "Conference" is so obviously a misnomer that next year's enterprise is to be known as a Forum.

Among the sixty-odd speeches will be found no consistent correlation between big names and good craftsmanship or momentous thought. A few of the best are Dorothy Thompson's "The Changing Status of Women," Clifton Fadiman of the *New-Yorker* on "New Emphases in Criticism," and Joseph C. Fennelly's "Crime and Politics."

Other speeches representing, in George William Curtis's words, the scholarship which "if it does not carry the election of today . . . determines the policy of tomorrow":

EDWIN W. KEMMERER ON INFLATION, New Haven, October 24, 1934. (*Vital Speeches* I:68-9). In a condensed and more expository version broadcast over CBS, December 19, 1934. (*Vital Speeches* I:286-7).

ARTHUR KROCK ON THE RELATION OF BUSINESS TO GOVERNMENT, New York Board of Trade, October 10, 1934. (*Vital Speeches* I-89-91).

EDWARD A. FILENE ON YOUTH AND OUR ECONOMIC SUPERSTITIONS, the National Student Federation, Boston, December 29, 1934. (*Vital Speeches* I-239-242).

WALTER LIPPMANN TO THE NATIONAL ASSOCIATION OF BOOK PUBLISHERS, New York, January 16, 1935. (N. Y. *Herald-Tribune*, January 17, 1935).

Vital Speeches of the Day, where most of the speeches reviewed and many others will be found in full text, is the bi-weekly published by the City News Publishing Company of New York. Forgiven the smack of Bernarr MacFadden in the title, it deserves the attention of students of contemporary rhetoric.

V. E. SIMRELL, *Dartmouth College*

NEWS AND NOTES

(Please send items of interest for this department directly to Miss Lousene Rousseau, 49 East 33rd Street, New York City.)

The Eastern Public Speaking Conference

The twenty-sixth Eastern Public Speaking Conference will be held at the Hotel Victoria, in New York City, April 25, 26, and 27. The first day's program will be devoted to the interests of secondary schools. On the other two days there will be two general sessions and sectional meetings on Rhetoric, Debating, Interpretation, Drama, Voice and Phonetics, and Speech Disorders.

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The Illinois Association

The fifth annual convention of the Illinois Association of Teachers of Speech was held at the University of Illinois November 23 and 24. The first event of the meeting was a Declamation Contest and an After-Dinner Speaking Contest, from which five students of each group were selected to compete in the Honor Program, held that afternoon for the declamations, and at the annual speech banquet in the evening in the case of the after-dinner speeches. A demonstration of the teaching of Parliamentary Law was presented by Mrs. Ethel Hamilton and a group of students from Urbana. O. F. Weber organized a round-table group discussion on the subject of Federal Aid to Education, in the course of which ten college students spoke on some aspect of the subject and both audience and students participated in the open-forum discussion which followed. Fred S. Sorrenson presided at the general session, at which the main address was given by Dr. A. T. Weaver, of the University of Wisconsin, on the subject of "The Side Show or the Big Tent." The section on dramatics heard Ruth Williams, of Monmouth College, discuss "Remodeling a College Little Theatre"; Elma Speckard, of Roosevelt Junior High School, Peoria, on "The Problems of Directing Junior High School Plays"; and Wesley Swanson and Richard Hadley, of the University of Illinois, in discussion and demonstration of "The Building and Use of Hume Permanent Sets." The remainder of this program was devoted to the presentation of three plays by high school groups. Another feature event of the convention was a debate between two high school teams on the high school question, which concerns Federal Aid to Education. The Interpretation Section consisted of both demonstrations and discussions. Roberta Poos, Wood River Community High School, discussed "Techniques Employed in the Reading of Prose"; W. Kirtley Atkinson, Canton High School, discussed "The Interpretation of Poetry"; Paul Crawford, Freeport High School, discussed "Techniques Involved in Coaching Oratorical Declamation"; the Interpretation of Character was discussed and demonstrated by Mary Blackburn, Granite City Community High School; Louise Falkin, Pekin Community High School; Edna Youngquist, Rockford High School; Elizabeth Thomas, East Aurora High School; and Mary E. Biersach,

Elgin High School. The final sectional program, on speech correction, was arranged by Dr. Clarence T. Simon, of Northwestern University, the speakers being Severina Nelson, of the University of Illinois, Margaret Letzer, and Paul Moore. The annual banquet, held at the Newman Foundation, was attended by 170 teachers and students.

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The New Jersey Association

The second annual meeting of the New Jersey Association of Teachers of Speech was held at Atlantic City on November 10. The main address of the meeting was on the subject of "Speech in Modern Education," and was delivered by Edwin Milton Royle, actor, playwright, and member of the Lambs Club of New York. The Syllabus Committee, with Frances Tibbits of Newark as chairman, reported progress on the preparation of a state syllabus in speech. A report by Ethel A. Lord of Camden indicated an increasing tendency on the part of colleges to grant entrance credit for speech courses in secondary schools. Arthur D. Arnold, Superintendent of Schools of Passaic, reported the results of a state-wide survey of speech education in the secondary schools. The new officers elected were the following: Laurence B. Goodrich, East Orange, President; Sara A. Walsh, Jersey City, Vice-President; Ellen C. Couch, Centenary Junior College, Secretary; and Jean C. Welsh, Camden, Treasurer.

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The Southern Association

The new officers of the Southern Association of Teachers of Speech, who will assume office in May, are—President, Rose Johnson, Woodlawn High School, Birmingham, Alabama. Vice-Presidents, Nellie Magee, Hillman College; Harley Smith, Louisiana State University; A. A. Hopkins, University of Florida; and Louise Sawyer, Georgia State Womans College. Secretary-Treasurer, T. Earle Johnson, University of Alabama.

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N. E. A. Meeting at Denver

The annual N. E. A. Convention will be held this year in Denver the first week in July. Those who like Western scenery can combine pleasure with profit. These Conventions have ceased to be merely expressions of a profession—they have become caucuses which draw attention and respect from the nation in general. For information regarding the Convention, as well as vacation trips in Colorado, write to A. Helen Anderson, Denver Public Schools, Denver, Colorado.

Records of Poets

American Speech, edited by William Cabell Greet, working in conjunction with the National Council of Teachers of English, is making phonograph records of the voices of several contemporary poets, reading their own works. The technical work will be done by Erpè Picture Consultants, Inc. Some records have already been made. Vachel Lindsay had several of his own readings recorded about a year before he died. Doctor Greet regards the phonographic accounts so highly that he and others are casting about for ways and means to record the greatest number possible.

Teachers of Speech, as well as teachers of English, may well ask themselves: What poems lose most by being printed? Which poets and which

works of these poets do my friends and I like best? What old favorites from Burns, Shakespeare, Milton, *et al*, should be recorded by excellent readers?

Doctor Greet suggests that interested persons confer further with Mr. George Hibbett, *American Speech*, Columbia University, University Press, New York City. Mr. Hibbett has the immediate supervision of the work, assisted by Professors Mark Van Doren, Raymond Weaver, and Angus Burrell. The list of present recordings numbers some hundred and fifty.

Oxford Meeting: World Federation of Education Association
August 10–17, 1935

The 1935 meeting of the World Federation of Education Associations will be held August 10–17, in Oxford, England, in conjunction with the International Federation of Teachers Associations (elementary) and the International Federation of Associations of Teachers in Secondary Schools of the countries. Persons who attend will have opportunity for making interesting contacts with many lands. The British Committee is preparing for various sorts of entertainment and special tours under the direction of local committees. Motor tours throughout England, Scotland, Ireland and the Continent are available. Distinguished speakers will be on the program and personalities known world-wide will be presented at the general sessions. The several Departments of the Federation will have programs, viz.: Universities and Colleges; Secondary Education; Social Adjustment, with a sub-section on Commercial Education; Rural Life and Rural Education; Illiteracy; Home and School; School Health; Elementary Education; Educational Crafts; Preparation of Teachers; Geography; Unusual Child; Teachers' Organizations; Pre-School and Kindergarten; Adult Education; Visual Education. The Consolidated Herman-Jordan Committee will hold special open sessions.

Sailings from New York and Montreal, at prices varying from $180 to $240 for the round trip, are available. Thos. Cook and Sons, who may be addressed at their offices in any large city, are handling travel details. Inquiries may be addressed to World Federation, 1201 16th St., N. W., Washington, D. C.

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CONFERENCE ON SPEECH EDUCATION AT LOUISIANA STATE UNIVERSITY

A conference on Speech Education, sponsored by the Department of Speech and the Graduate School, will be held at Louisiana State University June 11–20. Dr. A. T. Weaver, Head of the Department of Speech, University of Wisconsin, will join the Louisiana staff for the period of the conference as consultant.

The programs will consist of a daily lecture by Doctor Weaver, and of four individual and group conference hours daily, conducted by Doctor Weaver and the resident staff. There will also be sight-seeing in historic and scenic places, together with other recreation features.

The conference is open without charge to students of the Department of Speech, to members of the Graduate School, to members of the Annual Dramatic Institute (which will be in concurrent session), and to visiting teachers of speech.

Mrs. Jane Dorsey Zimmerman, of Columbia University, will conduct a travel study group in phonetics in England during the approaching summer. Sailing from New York will be from June 22. The cost will be about $550.00. The course will be accredited by Columbia University.

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The Linguistic Atlas of the United States and Canada, having completed the gathering of data in New England, has moved its field operations to the south Atlantic states. Doctor Guy L. Lowman, who did exploratory work in this area last summer, has been retained through a grant from the General Education Board and a fellowship from the University of Virginia, to complete the work. Dr. Hans Kurath, Director of the Atlas, together with his staff of experts, is continuing the editing of the New England data at the Atlas Headquarters at Brown University.

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Lois Buswell, of the Highmore, South Dakota, High School, calls attention to the fact that the South Dakota State course of study requires a half-year of speech study in the junior year. Miss Buswell has been using two weeks of the time in a vitalized study of parliamentary practice.

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The Tennessee Association of Teachers of Speech has gone on record as recommending that the National Association endorse the publication of a bulletin setting forth the requirements of courses of study and credits in speech on state teacher's certificates by all State Boards of Education in the United States. It likewise recommends that a definite campaign be undertaken for increasing subscriptions to the *Quarterly Journal of Speech*.

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The Illinois Association of Teachers of Speech has been making an active campaign to persuade its members to join the National Association, with the result that some thirty-five teachers have already taken advantage of the joint membership offer. The Association is also working to influence the University of Illinois and other Illinois universities and colleges to recognize speech courses in high school on the same academic basis as other subjects. The new officers of the Illinois Association are the following: Gus Campbell, Northern State Teachers College, President; Blanche Davis, Carrollton, Vice-President; A. D. Huston, University of Illinois, Secretary-Treasurer; and Paul Crawford, Freeport, Editor of the *Illinois Speech News*, the newsy bulletin which the Association publishes every other month.

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An exceedingly hopeful sign of the growing recognition accorded speech work as a college entrance requirement is the action of the faculty of the University of Wisconsin in June, 1934, in approving revolutionary changes in its system of entrance requirements and credits—an action which was the result of agitation of high school teachers and administrators throughout the state. Under the old system, speech as such was not mentioned under either Group A or Group B of high school subjects, but either had to be classified under the heading of "Optional" in Group B, or "bootlegged" in as English under Group A. In the new set-up the first heading under Group A is "English and Speech." The old rules provided that no more than four units could be

offered for entrance in any single subject, but the new ones make it possible to offer as many as nine units under any of the first five "fields of study" in Group A, which include, in addition to English and Speech, Foreign Language, History and Social Science, Mathematics, and Natural Science.

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Harry B. Gough, of De Pauw University, is the new president of the Indiana Association of Teachers of Speech, and Herold Truslow Ross, also of De Pauw, is the new Editor of the *Indiana Speech News*, the attractive bulletin published four times per year by the Indiana Association. Myron G. Phillips, of Wabash College, is the Business Manager of the bulletin. The Indiana Association is making a vigorous campaign for new members. At the first meeting of the new Board of Directors, in November, the President was authorized to create a Legislative Committee to consider all matters relating to the state requirements of teachers and the state course of study in speech. This committee is composed of L. E. Norvelle, of Indiana University; W. N. Brigance, of Wabash College; and A. T. Monroe, of Purdue University.

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Louisiana State University has begun a radio series called "Our Speech," similar to the "Magic of Speech" hour which is sponsored by the N.B.C., under the direction of Vida R. Sutton. "Our Speech" is directed by L. L. Hale.

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The Division of Speech of the University of Illinois sponsors an "Hour of the Spoken Word" program at 5 p.m. each Tuesday. Members of the speech faculty appear in these programs.

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Pearl Buchanan, of the Eastern Kentucky State Teachers College, is chairman of the weekly broadcast sponsored by that institution, at 2:30 C.S.T. on Tuesdays. The programs are made up of speeches, music, and plays.

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A broadcast interesting to speech teachers was the trans-Atlantic discussion of similarities and differences in American and English speech, conducted over WJZ and an extensive network on January 15. The speakers were Dr. Cabel Greet, Professor of English at Columbia University, and S. P. B. Mais, British writer and critic. The subject as announced was "Do England and the United States speak the same language?"

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The Department of Speech of Kansas State College was in charge of the program which was broadcast on February 16 to mark the seventy-second anniversary of the founding of the college. The program was written, directed, and produced by members of the Speech staff, and was set out over the N.B.C. and an extensive network.

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The Department of Speech of the University of Wisconsin is planning a field trip in phonetics during the summer session. This will involve a six-week excursion by bus to study the dialects of the eastern, southern, and mid-western portions of the United States and the French Canadian dialects of the Province of Quebec. The cost to the student is to be kept below $250.00, and therefore, unless the number of students enrolling is sufficient to keep

the cost down, the trip will be cancelled. Registration should be made by May 15. Inquiries may be addressed to Dr. Robert West at the University. Dr. C. M. Wise, Chairman of the Department of Speech of Louisiana State University, will be in charge of the course.

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FORENSICS

The Illinois Association of Teachers of Speech has created a Committee of Listing Judges for Speech Contests, of which Mabel Allen, of the State Normal University at Normal, is chairman. This committee has presented to the organization a four-page list of available judges, listing in each case speech training, experience in the field of speech, fields of contest work in which they are best qualified to judge, experience in judging contests, and average fee.

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The annual contests of the Illinois State High School Music and Literary Association have been extended this year to include contests in verse speaking. In addition to these and the music contests, there will be the usual contests in debate, public speaking, and plays. Dr. Fred S. Sorrenson, of the Illinois State University at Normal, is manager of the Association.

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Dr. C. C. Cunningham, director of the Northwestern University Student Lyceum, has issued a bulletin entitled "The Problem of the Program Chairman Is Solved," which lists twenty-seven programs of lectures, discussions, acts of magic, etc., which are available at the School of Speech, usually for expenses.

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The fifth Annual Invitational Debate Tournament for colleges and universities in the Middle West was held at Manchester College February 22 and 23. The questions to be debated are: Resolved: That all collective bargaining be negotiated by non-company unions safeguarded by law; and Resolved: That all nations should agree to prevent the international shipment of arms and munitions.

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Twenty-five schools have enrolled for the Indiana high school declamation contest to be held at Franklin, April 27, the winner to represent Indiana in the National Forensic League contest in May. Ray Ehrensberger, of Franklin College, is in charge of the contest.

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A series of high school debates is being staged over the radio station of Purdue University.

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Oxford University debated with Wayne University in late November, on the proposition that the abandonment of the policy of isolation is necessary for American recovery.

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The climax of the 1933–1934 debating season at West Virginia University was the sending of two men to represent the colleges of the United States, under the auspices of the National Student Federation, in a series of debates

with colleges of England, Scotland, and Wales. This year the West Virginia team is taking a Southern tour, which will end at Miami University in a debate which will be broadcast.

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F. L. Whan, Director of Forensics at Iowa State College, has undertaken a schedule of eighty debates for the current season. Twelve of them will be held over radio station WOI, and about twenty-five are being held before farm audiences in Kansas and Iowa, under the direction of the Extension Division. Two foreign teams are among the opponents, one from England and one from Hawaii. Fifty-four students are on the debating squad.

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Miss Mary Blackburn, of the Granite City, Illinois, High School, has devised a plan for raising funds for forensics. She presents an annual holiday event. This year it was a "Miniature World's Fair," with a Hall of Science, Electrical Building, Foods Exhibit, Foreign Exhibit, and a Believe It or Not—all for ten cents. The last part of the program was the crowning of the Harvest Queen. Receipts, $440.00.

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A First Debate Tournament was held at Fort Wayne, Indiana, in January, with two rounds of high school debates being scheduled.

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Western Reserve University carries a debate squad of thirty members each year, and schedules from thirty to forty-five debates. Three questions are being used this year: (1) The present tendency toward socialized control of economic life in the United States as exemplified in the New Deal is to be condemned; (2) The abandonment by the United States of its isolationist policy is essential to recovery; and (3) the Pi Kappa Delta armaments topic.

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Creighton University maintained the negative against a team from the University of London last November in a debate on the question: Pacificism is the truest form of patriotism.

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More than two hundred colleges and universities are this year debating the Pi Kappa Delta armaments question.

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The National Forensic League headquarters, located for eight years at Ripon, Wisconsin, has been moved to Denver, Colorado. The organization reports a total of 427 chapters and more than 11,000 members.

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DRAMATICS

The annual invitation one-act play contest sponsored by Mississippi State Teachers College at Hattiesburg was held this year on Washington's Birthday.

Blackfriars Club of Agnes Scott College has presented this year *You Never Can Tell*, and *Craig's Wife*.

The Brat, a three-act comedy, was produced at Indiana University December 11 and 12.

Under the direction of Darrell Gooch, Lebanon High School, Indiana, presented *Little Women* in November.

The Importance of Being Earnest, by Oscar Wilde, was presented at Central High School, Evansville, Indiana, in January, for the purpose of creating funds for a scholarship to Evansville College.

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THE YEAR IN THE CORNELL UNIVERSITY THEATRE

The Cornell Summer Theatre played during the Summer Session five productions, which included one group of original Cornell plays: *Our Good Brother Joseph*, by Philip Freund; *An Affair of Honor*, by Hyman Yudewitz; the two 1934 Heermans Prize Plays *This Is What Happened* by Charles Moss and *Dollar Deliriums* by Avery Cohan; another group, O'Neill's *Before Breakfast*, Tchekov's *The Swan Song*, Stuart Walker's *The Medicine Show*, Macnamara's *Hat and Stick*; a group by the summer classes, Wilde's *What Never Dies*, Firkin's *The Emeralds*, Dan Totheroh's *The Great Dark*, Smith's *They Refuse to be Resurrected*. Two long plays received fine productions and one was repeated in the fall.

The Cornell Dramatic Club unit of the Theatre has produced during the first term Lennox Robinson's *The Far-Off Hills*, Robert Sherwood's *The Queen's Husband*, Sidney Howard's *The Late Christopher Bean*, the Spewack's *Clear All Wires*, and George Kelly's *The Torch Bearers*. The Theatre has also joined with the musical organizations of the University in a spectacular production of *H. M. S. Pinafore*, which had a success rivaling that of the previous year's *Mikado*.

The graduates of the Laboratory Theatre are at work on Tchekov's *Uncle Vanya* and Ibsen's *Rosmersholm*. The Studio Theatre unit will produce several groups of original Cornell Plays during the second term, most of them written in the course in Playwriting—Public Speaking 49. The Theatre is as usual assisting in the production of the Farm and Home Week Rural Dramatic Festival, and the Kermis Plays.

The rural drama in New York State, which is fostered by the Department of Rural Social Organization of the State College of Agriculture, is interestingly presented in a statistical report by that Department. The survey showed apparently 1500 plays in rural New York in 1933–34, with 3100 performances of these plays and 12,500 participants. The Department has contact with about one-third of the productions through its loan library and dramatic training schools and demonstrations. The loan library had about 600 orders for packets of plays during the year, and 97 per cent of the organizations which ordered from the library selected plays from their orders. A volume of rural plays written for the prizes maintained by the Kermis has just been published by Sergel.

On the Summer and regular Theatre staff the past year have been: Director, A. M. Drummond; Assistant Director, W. H. Stainton; and a staff of sixteen people.

The Studio and Laboratory Theatres have this year been partly supported by a small grant from the Rockefeller Foundation.

Counsellor-at-Law was Duzer Du's opening play at De Pauw University

this season. *Everyman* was presented at a Vesper Service early in December, and the annual Christmas Plays were *The Christmas Destiny* and *The Travelling Man*.

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The high schools of four counties in northern Indiana have organized a dramatic league, and sponsor a county, sub-district, and district one-act play tournament.

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Recent dramatic productions at Alabama College have included *The Princess and the Swineherd*, by Gwendolen Seiler, directed by Willilee Reaves Trumbauer; and *Iphigenia in Tauris*, by Euripides; *The Knight of the Burning Pestle*, by Beaumont and Fletcher; *The Women Have Their Way*, by the Quinteros; and *What Can't Money Buy*, by Walter H. Trumbauer, under the direction of Walter H. Trumbauer.

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The Koshares, Delight-makers of New Mexico Normal University, have staged three original plays this season in addition to reviving old numbers of their repertoire. The new plays are *Mistral*, a farce by Emily and Raoul Whitfield; *Dudes Is Dumb*, by Charles Bergmann and William Strickfaden; and a play by Edgar Lee Masters. *Our Lady of Guadalupe* was presented in both English and Spanish early in December, and *Why the Chimes Rang* at Christmas.

— Plays presented recently by Illinois high schools include the following: *Big Hearted Herbert*, by Sophie Kerr and Anna Steese Richardson; and *Christmas in Many Lands*, a series of original tableaux, at East Aurora; *Merely Mary Ann* at Elgin; *The Admirable Crichton* at Sterling; *Skidding* and *The Gypsy Trail* at Peoria; *Little Women* at Freeport; *The Show Off* at Granite City; *The Romantic Age* at Rockford; and *Merely Mary Ann* at Pekin.

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PERSONALS

At Christmas time this year Wilbur Jones Kay, chairman of the Speech Department at West Virginia University, gave his twenty-fifth Christmas reading of Dicken's "Christmas Carol" at the closing convocation of the University year.

Nadine Shepardson, formerly at Northwestern University, is now in charge of speech work at Gulf Park College in Mississippi.

Louise Thomas, formerly of the Mississippi State College for Women, was married last summer to Dr. Rodney Miller, head of the English Department at Greensboro College, North Carolina.

Robert Williams, of De Pauw University, is on leave of absence for the remainder of the year due to illness.

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Vida Ravenscroft Sutton, director of the Magic of Speech programs of the National Broadcasting Company, will teach courses in Voice and Diction, Dialects, and Radio Drama during the second summer term at the University of Denver.

Bruno E. Jacob, national secretary of the National Forensic League, will teach a course for directors of debate during the summer at the University of Denver. Headquarters of the National Forensic League were recently moved to the University of Denver from Ripon, Wisconsin.

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J. H. McBurney, for some years a member of the Speech staff at the University of Michigan, and manager of the Michigan High School Forensic Association, has just been granted his Ph.D. degree by the University of Michigan. His thesis was "The Place of the Enthymeme in Rhetorical Theory."